

## An Analysis of the Impact of Parallel Foreign Exchange Market on Low Income Residential Housing Development in Enugu Urban Area.

Aniagolu Celestine Obinna (PhD)<sup>1</sup>, Iyi Edmund Amuezuoke (PhD)<sup>2</sup>,  
Ugwu Lucy Nkiru (PhD)<sup>3</sup>

(1) Department of Estate Management, (2 & 3) Department of Urban and Regional Planning, Enugu State University of Science and Technology (ESUT), Enugu.

Corresponding Author: Aniagolu Celestine Obinna (PhD)

---

**Abstract:** This paper tries to analyze the impact of parallel foreign exchange market on low income residential housing development in Enugu Urban Area. It tries to determine the volume of transaction in Enugu from January – December, 2017 making projection up to 2022. It equally tried to determine the relationship between the volume of transaction in the market and the volume of low income residential housing development in the study area. Survey research method was adapted and data was collected through both primary and secondary sources. Data was analysed using linear regression analysis. The study not only discovered that between 259 and 463 three bedrooms low income residential bungalows could be developed annually but also established a relationship of  $Y=3.134E7 + 8.867E6X$  between the number of housing units and the volume of transactions (ie the amount dedicated to real estate development). Hence, there is a first order linear auto-correlation between the data. The study recommended inter alia that the Nigerian Institution of Estate Surveyors and Valuers should embark on collaboration research aimed at understanding how real estate development finance could be raised and sustained through the parallel foreign exchange market in Nigeria.

**Keywords:** Foreign Exchange, Foreign Exchange Market, Parallel Foreign Exchange Market, Real Estate, Real Estate Finance, Real Estate Development.

---

Date of Submission: 15-04-2019

Date of acceptance: 30-04-2019

---

### I. Background of the Study

According to Nnametu (2012), housing happens to be one of man's basic needs for physical, economical and mental development. Onyike (2004) buttressed this point by stating that housing has been acclaimed universally as the second most essential human need after food. Omoniyi (1994) had earlier expressed the fact that housing goes beyond the provision of shelter, but ventures further into provision of social services which not only supports the growth of a community but makes any neighbourhood a livable place. Hence, Aribigbola (2008) feels that housing is a physical structure (usually for residential purposes) which mankind uses as shelter and it includes all the necessary social services facilities, equipment and/or devices that are required for physical and mental development of man.

However, Akeju (2007) pointed out problems facing housing provision in Nigeria as follows, corruption in land allocation, rigorous process of obtaining certificate of occupancy and fraudulent activities of staff and personnel of the various ministries bestowed with the responsibility of housing provision. Onyike (2009) further stated that the ever increasing population of Nigeria cities which is caused by rural-urban migration and very high birth rate is also a very big challenge to housing development / provision in Nigeria. Ebie (2007) continued by stating that lack of local building material industries that could provide affordable building materials remains one of the bane of housing provision. The imported foreign materials are so expensive that when they are used in housing development the houses provided are not affordable by the low income earners.

Furthermore, Agbola (2004) opined that finance has been the motivating factor in the construction industry. Nnametu (2012) pointed out also that housing development involves huge capital outlay and cannot be financed only through personal finance which involves savings over a very long period of time. Hence, Onyike (2009) stated that availability of finance for housing development is one of the parameters for judging performing governments at all levels. Short, medium and long term funds must be properly planned for and made available for present and future housing development needs of the society. It is also important to note that since housing benefits spreads through many years, long term credit facilities should be adequately provided if

housing problems of any society would be arrested. Hence, there must be a sustainable synergy and effective linkages between saver, investors and consumers of housing development funds.

One of the long term sources of funds in Nigeria is the foreign exchange parallel market. As such Oladele (2012) stated that the parallel foreign exchange market in Nigeria has become a major source of finance to a wide variety of economic agents and the exchange rate in the market is usually appreciated when compared with the official market. It is against this background that this paper intends to analyze the impact of the parallel foreign exchange market on low income residential housing development in Enugu urban area, Nigeria.

## **II. Statement of the Problem**

According to Ibem, Anosike and Azuba (2011), one of the greatest challenges of residential housing development in Nigeria is general scarcity of real estate development funds. This is because household income is usually confronted with a lot of compulsory expenditure such as feeding, housing (rent), clothing, transportation, education, medicals, etc. Therefore, there is need for diversification in the sources of residential housing development funds. One of the sources which this paper considered is the parallel foreign exchange market.

Musa (2008) stated that the parallel foreign exchange market in Nigeria has reached a highly remarkable size. Ayogu (1997) further stated that the market apart from being ubiquitous can also be found in Kerbs, hotel lobbies, restaurants, airport lounges, outside parking lots, landings of staircases, under staircase, within commercial local markets, between floors of storeyed buildings, inside shacks and in business bureaus. Nnanna *et al* (2005) added that it was the numerous failed reforms to the official foreign exchange market that contributed in no small measure to the expansion of the parallel market.

Hence, Bobola (2009) concludes that any imaginable place where the parties involved feel safe and secured during the transaction automatically becomes a dealing spot. Besides, Ayodola and Obafemi (2010) further stated that it was the constant expansion of the parallel market that resulted in government losing control over the economy since more of the foreign exchange meant for transaction in the official market are diverted to the parallel market; hence creating a black market premium as presented by caporale and Cerrato (2009). Oladele (2012), therefore asserts that the ratio of patronage of parallel and official foreign exchange markets is at 60% and 40% respectively. This means that more transactions are recorded in the parallel market than in the official market. Surprisingly, since, the parallel market is regarded as an illegal (black) market all transactions in the market are not recorded anywhere.

This research work therefore decided to analyze the impact of the parallel foreign exchange market on low income residential housing development in Enugu Urban Area.

## **III. Aim and Objectives of the Study**

The study aims at analyzing the impact of parallel foreign exchange market on low income residential housing development in Enugu Urban Area. To achieve this aim, the following objectives were put forward:

- a. To estimate the volume of transactions that take place in the parallel foreign exchange market in Enugu.
- b. To determine the impact of the parallel foreign exchange market on low income residential housing development in Enugu Urban Area.
- c. To establish a relationship between the volume of parallel foreign exchange transaction and low income residential housing development in Enugu Urban Area.

## **IV. Research Questions**

A number of question were raised that would help us achieve the objectives of the study. The questions are:

- a. What is the estimated volume of transactions that take in Enugu Parallel Foreign Exchange Market?
- b. What is the impact of the parallel foreign exchange market on low income residential housing development in Enugu urban area?
- c. What relationship could be established between the volume of transaction in the parallel foreign exchange market and low income residential housing development in Enugu?

## **V. Hypothesis Formulation**

In order to investigate the posed research questions the following hypothesis has been put forward:

Ho: There is no significant relationship between the volume of parallel foreign exchange transactions and residential housing development in Enugu urban area.

Hi: There is a significant relationship between the volume of parallel foreign exchange transactions and residential housing development in Enugu urban area.

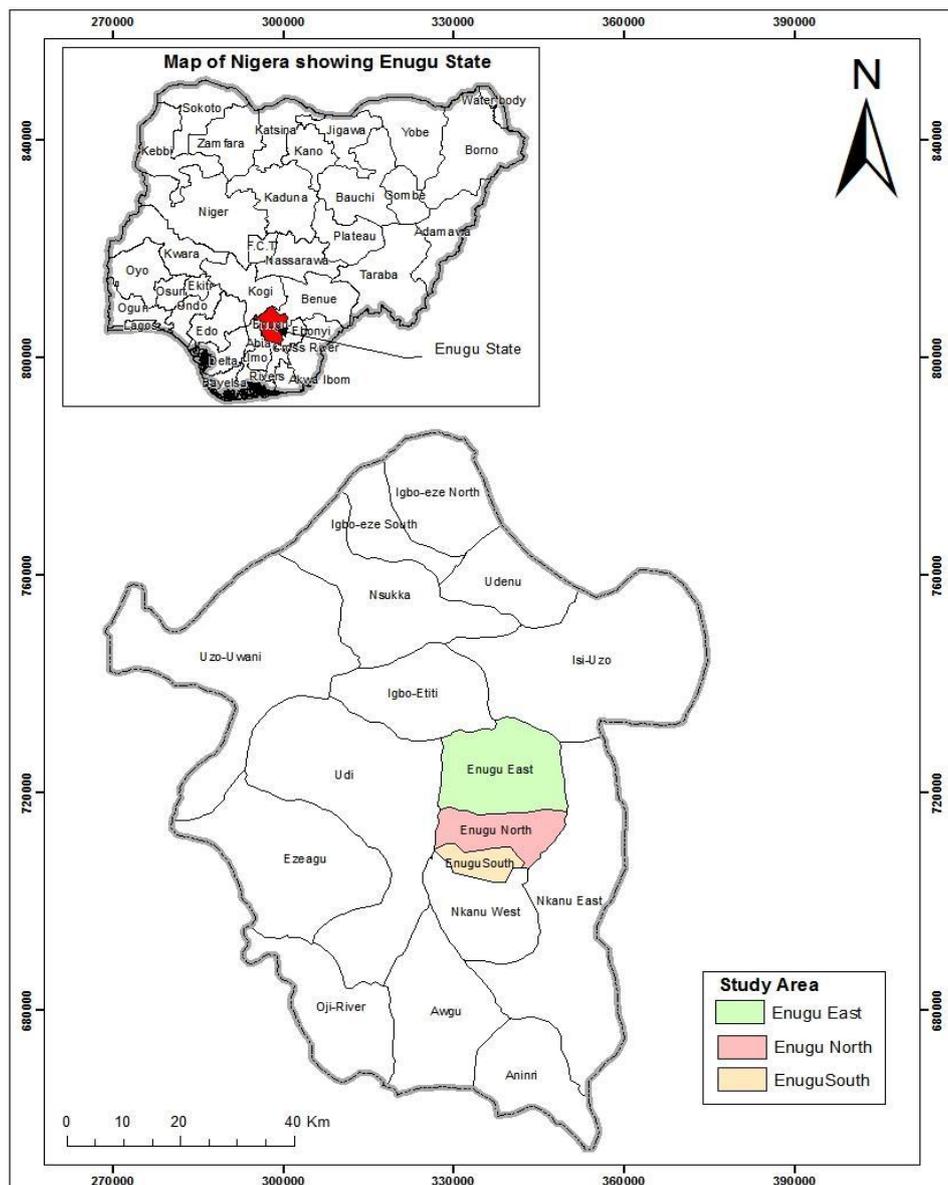
## VI. Scope of the Study

This study covers the two major locations hosting parallel foreign exchange markets in Enugu namely – Okpara Avenue and Owerri Road (off Ogui Road). The study also concentrated on three major foreign currencies namely, Dollars, Pound Sterling and Euro. The purchase exchange rates were adopted for the study. Considerations were not giving to sales exchange rates. Again the study focuses on low income residential (three bedrooms bungalow) real estate development.

## VII. The Study Area

Enugu Capital of Enugu State, Nigeria is the study area. Its lies between latitudes  $6^{\circ}27' N$  and  $7^{\circ}28' N$  and longitudes  $7^{\circ}30' E$  and  $8^{\circ}19' E$  (Enugu Master Plan, 1978). It has a total land area of about 72.8square kilometers. Its history dates back to 1909 when a rich seam of coal was discovered by some British geological exploration team (ENSG, 1991). The coal mining activities led to the development of the town and earned it the pet name “coal city” (Jibrum, 2012).

The 2006 population census put the population of Enugu at 722,664 people. If this figure is projected with the population growth rate of 3.18% per annum (NPC, 2014), then the population of Enugu as at 2018 should be close to 1,269,504 people.



**Map1:** Map of Nigeria showing Enugu State

**Source:** [https://www.researchgate.net/figure/Map-of-Nigeria-above-showingEnugu State-and-Map-of-Enugu-state-showing-the-study-area\\_fig1\\_299822112](https://www.researchgate.net/figure/Map-of-Nigeria-above-showingEnugu-State-and-Map-of-Enugu-state-showing-the-study-area_fig1_299822112)

Enugu is predominantly occupied by Igbos who are widely known to be very resourceful and hard working. Enugu is covered with a secondary plant cover referred to as Savanna Mosaic-Forest since the primary forest cover has been depleted due to urban development, logging, agriculture and other human activities (Nwofor, 2003). According NIMET (2014) the town has a tropical wet and dry climate with annual rainfall figures ranging from 859mm – 1839mm and average temperature at 28°C.

### VIII. Materials and Methods

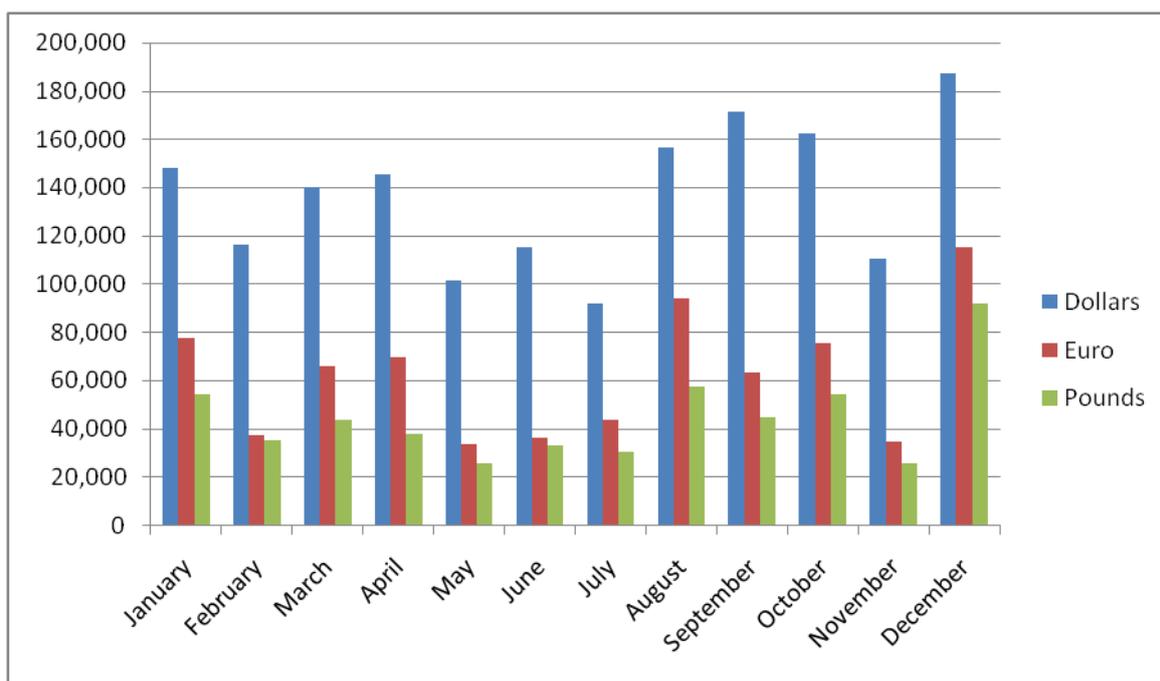
Data required for this study was collected from both primary and secondary sources. The population of the study comprises the dealers (operators) in the parallel foreign exchange market at both Okpara Avenue and Owerri Road locations and customers (clients) who patronize the market. Also staff of CBN Enugu branch was used to crosscheck information generated. Again, staff of ministry of lands & urban development and ministry of works & housing Enugu also formed part of the population of the study. Members of Real Estate Development Association of Nigeria (REDAN) Enugu State Chapter equally forms part of the population of study.

The study adapted the survey research method which Kelinger (1973) emphasized that it studies sociological and psychological variables that teach people the vital facts about people and their beliefs, opinions, attributes, motivations and behavior through the use of sampling of the universe. Similarly, Nwabuokei (1986) further stated that survey research studies large population or universe by selecting and studying samples chosen from the population to discover the relative incidence, distribution and inter-relationships of sociological variables.

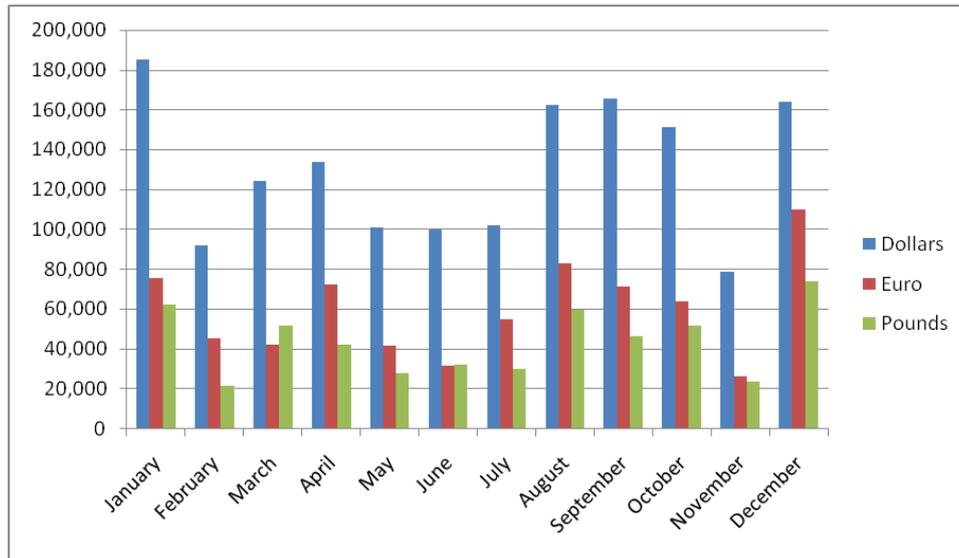
### IX. Data Presentation and Analysis

#### 9.1 Determination of the Volume of Transaction in Enugu Parallel Foreign Exchange Market.

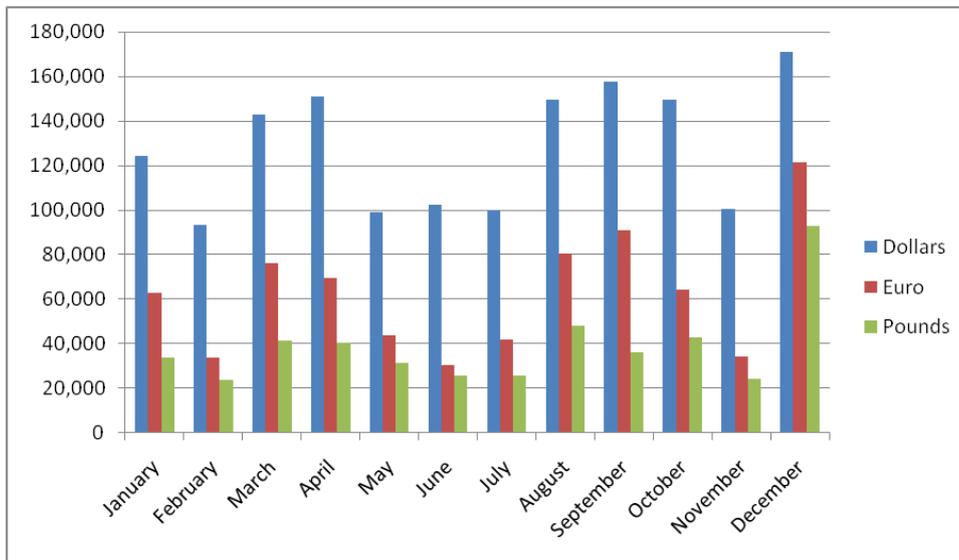
In order to determine the volume of transactions in the study area, 5 (five) shops each were sampled at both Okpara Avenue and Owerri Road locations. Records of all transaction done in these shops were taken with the help of some field assistants for Jan – Dec. 2017. The records covered 24 (twenty-four) weeks and for each week transactions in the selected shops were recorded for seven day of the week since we observed that many operators were Moslems who do not observe the Sunday holidays. The weeks were alternated to ensure a wider coverage. The average transaction recorded in each of the 5 (five) shops in the two locations are presented in figures 1 and 2.



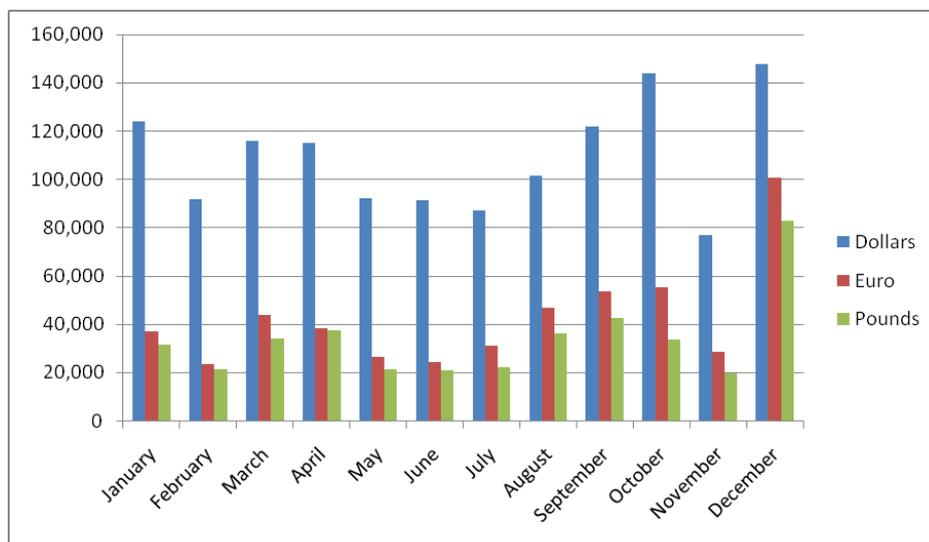
a. Shop 1 (Owerri Road)



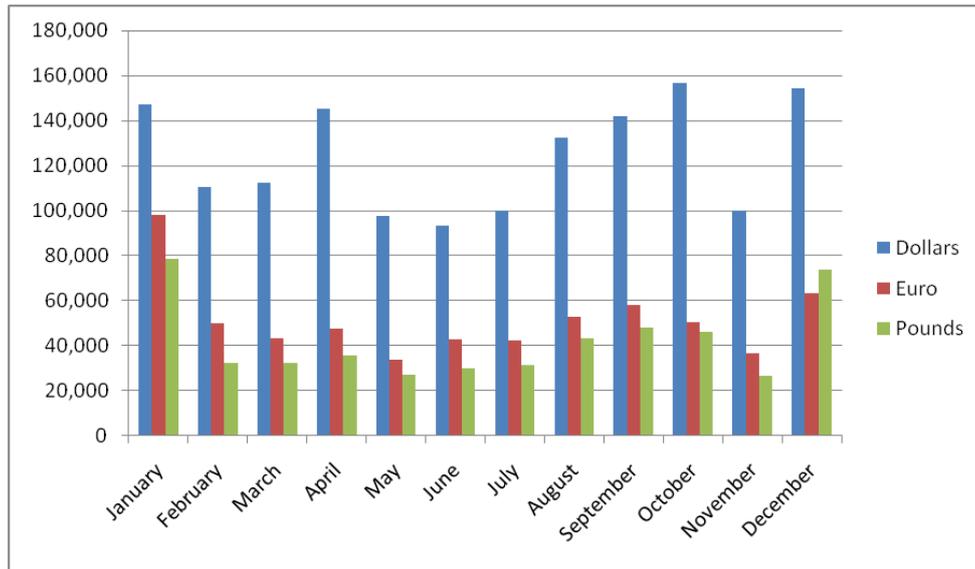
b. Shop 2 (Owerri Road)



c. Shop 3 (Owerri Road)

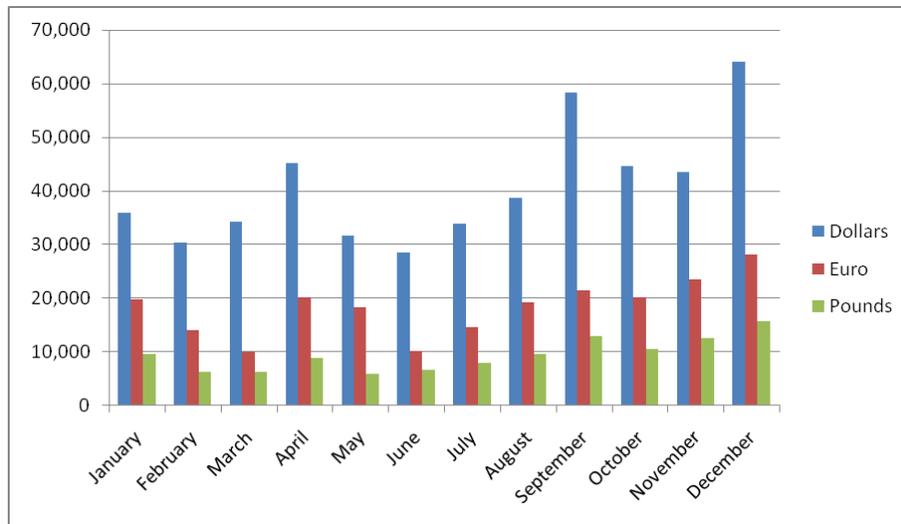


d. Shop 4 (Owerri Road)

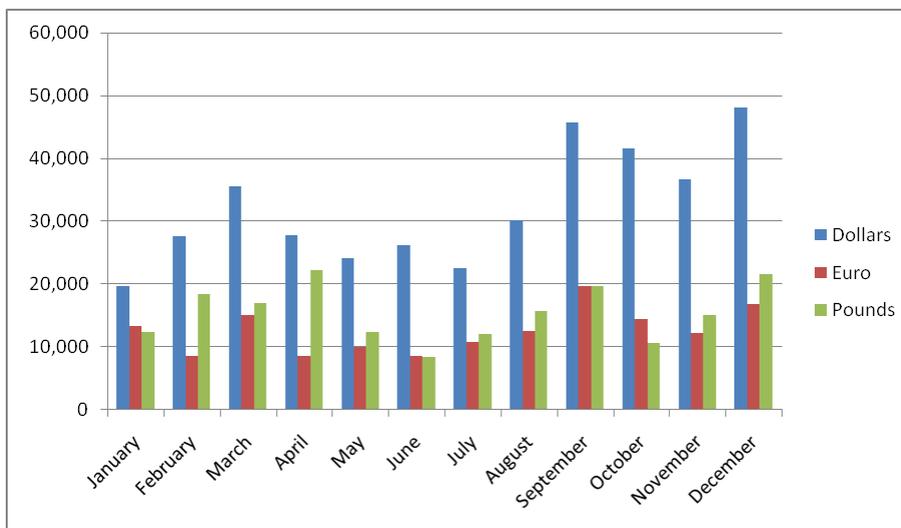


e. Shop 5 (Owerri Road)

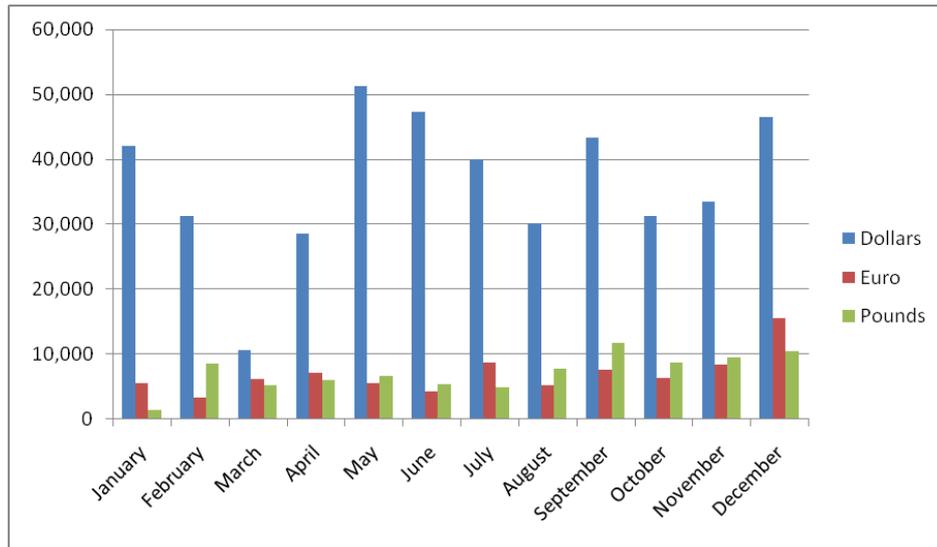
**Fig. 1:** Showing the Average Volume of Transaction in Shops Along Owerri Road, Enugu



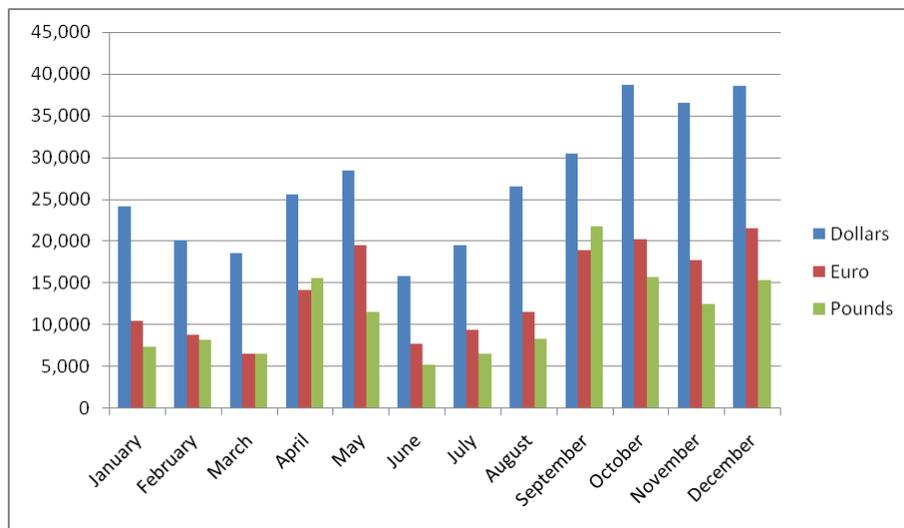
a. Shop 1 (Okpara Avenue)



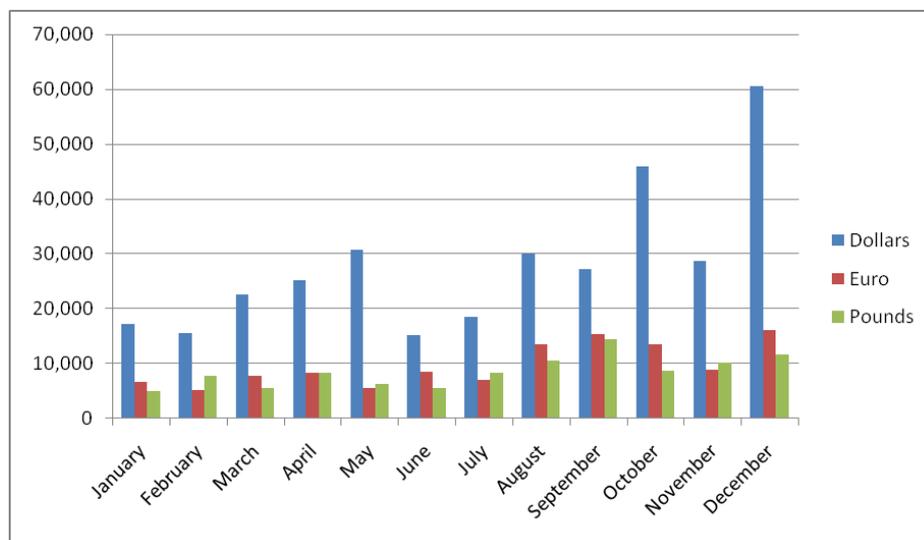
b. Shop 2 (Okpara Avenue)



c. Shop 3 (Okpara Avenue)



d. Shop 4 (Okpara Avenue)



e. Shop 5 (Okpara Avenue)

**Fig. 2:** Showing the Average Volume of Transaction in Shops Along Okpara Avenue, Enugu.

From figures 1 and 2 it could be seen that the market at Owerri road is quite busy when compared with that of Okpara Avenue. Also most of the shops recorded maximum transactions within festivities in March/April and in November, December and January. Again high transactions were recorded in July, August, September and October representing periods of holidays and/or payment of school fees. The study equally observed that the major sources of this foreign exchange include western union transfers, domiciliary accounts and smuggling.

**9.2 Determination of the Impact of Parallel Foreign Exchange Market on Residential Housing Development in Enugu Urban Area**

Onwuka, Aniagolu and Iyi (2019) had earlier determined the impact of parallel foreign exchange market on low income residential housing units as presented in table 1.

**Table 1:** Determination of the Numbr of Low Income Residential Housing Units that could be financed through the Enugu Parallel Market.

Year	Total Amount of Foreign Exchange (₦)	% Dedicated for Real Estate Development	Amount Dedicated for Real Estate Development (₦) (34%)	Cost of Construction of a 3 Bedrooms Bungalow (₦)	No. of Bungalow Per Year
2017	6,837,805,746	34	N2,324,853,954	N9,000,000	259
2018	7,662,807,116	34	2,605,354,419	N9,000,000	290
2019	8,612,995,621	34	2,928,418,511	N9,000,000	326
2020	9,681,006,572	34	3,291,542,234	N9,000,000	366
2021	10,881,145,132	34	3,641,589,344	N9,000,000	412
2022	12,230,751,470	34	4,158,455,500	N9,000,000	463

From table 1, it could be seen that based on the fact that 34% of the amount of foreign exchange that was traded in Enugu foreign exchange market was dedicated to low income residential housing development and that a standard three bedrooms bungalow costs about ₦9 million naira to construct, a total of 259 housing units could be achieved from the market in 2018 and the number could increase in arithmetic progression to 463 housing units in 2022.

**9.3 Test of Hypothesis**

As discussed in section 5.0 the hypothesis postulated to investigate the research questions is as follows:

H<sub>0</sub>: There is no significant relationship between the volume of parallel foreign exchange transactions and low income residential housing development in Enugu urban area.

H<sub>1</sub>: There is a significant relationship between the volume of parallel foreign exchange transactions and low income residential housing development in Enugu urban area.

In order to test the hypothesis linear regression analysis was done to establish the relationship between the number of low density residential bungalow per year (the independent variable) and the amount dedicated to real estate development (the dependent variable) as follows:

**Variables Entered/Removed<sup>a</sup>**

Model	Variables Entered	Variables Removed	Method
1	Number of Bungalow per year		Stepwise (Criteria: Probability-of-F-to-enter <= .050, Probability-of-F-to-remove >= .100).

a. Dependent Variable: Amount dedicated for Real Estate Dev.

**Model Summary<sup>b</sup>**

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics					Durbin-Watson
					R Square Change	F Change	df1	df2	Sig. F Change	
1	.999 <sup>a</sup>	.999	.999	2.547E7	.999	3549.467	1	4	.000	2.946

a. Predictors: (Constant), Number of Bungalow per year

b. Dependent Variable: Amount dedicated for Real Estate Dev.

**ANOVA<sup>b</sup>**

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	2.302E18	1	2.302E18	3.549E3	.000 <sup>a</sup>
	Residual	2.594E15	4	6.486E14		
	Total	2.305E18	5			

a. Predictors: (Constant), Number of Bungalow per year

b. Dependent Variable: Amount dedicated for Real Estate Dev.

**Coefficients<sup>a</sup>**

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		
	B	Std. Error	Beta			Lower Bound	Upper Bound	
1	(Constant)	3.134E7	5.351E7		.586	.590	-1.172E8	1.799E8
	Number of Bungalow per year	8.867E6	148828.418	.999	59.577	.000	8453596.429	9280024.297

a. Dependent Variable: Amount dedicated for Real Estate Dev.

From the above it could be established that the regression equation  $Y=a+bx$  is finally represented as  $Y = 3.134E7 + 8.867E6x$

### X. Recommendations

Scholars and researchers have pointed out that the Nigerian economy has been bedeviled with many problems which include *interalia* over-dependence on oil and gas revenues, high level of insecurity, corruption, high interest rate policies, lack of profitable investment options, high rate of illiteracy, high population growth rate and sectionalism / boardroom crisis. These problems have directly or indirectly affected the real estate sector since the industry requires huge capital outlay to function. This research work therefore recommends as follows: firstly, government at all levels in Nigeria should recognize the amorphous nature of the parallel foreign exchange market in Nigeria. This will in turn trigger off inquiry into how the potentials of the market can be harnessed. Secondly, extensive research should be carried out by the government to understand the dynamics of the parallel foreign exchange market. Thirdly, the Nigeria Institution of Estate Surveyors and Valuers (NIESV) should play a leadership role by also embarking on collaborative research with academic departments in Nigerian Universities aimed at understanding how real estate development finance could be sourced through the parallel foreign exchange market. Fourthly, the various researches if properly done would generate policies that could help in making sure that all the transactions in the parallel foreign exchange market are properly recorded. This will in turn remove the illegality of the parallel market with time. Finally, government should vigorously pursue policies that would revitalize the Nigeria economy and reduce our over-dependence on importation.

### XI. Conclusion

The parallel foreign exchange market in Nigeria has become a major source of foreign exchange to many. Infact, the rate of patronage of the market outweighs that of the official market due to documentation bottlenecks, administrative costs and other charges, better exchange rates, limited transactions, etc. experienced in the official market. The potentials of the market should therefore be harnessed for better financing of other sectors of the Nigeria economy. This paper therefore demonstrates that if properly harnessed, the parallel foreign exchange market in Nigeria could turn out to be a very good source of real estate finance.

### Reference

- [1]. Agbola, T. (2004): The Challenging Features of Nigeria Housing Policy and the Challenges of Greater Access to Mortgage Financing. Center for Urban and Regional Planning, University of Ibadan.
- [2]. Akeju, A. A. (2007); Challenges to Providing Affordable Housing in Nigeria: Being a Paper Presented at the Second Emerging Urban Africa International Conference on Spatial Information for Sustainable Development, Nairobi, Kenya.
- [3]. Aribigbola, A. (2008): Housing Policy Formulation in Developing Countries: Evidence of Programme Implementation from Akure, Ondo State Nigeria. *Journal of Human Ecology*, Vol. 23(2), Pps 125 – 134.
- [4]. Ayodele, O. S. and Obafemi, F. N. (2010): Fiscal and Quasi-Fiscal Effects of the Parallel Exchange Premium in Nigeria. AERC Research Papers, Pp 3.
- [5]. Ayogu, M. D. (1997): “Empirical Studies of Nigeria’s Foreign Exchange Parallel Market II: Speculative Efficiency and Noisy Trading”. AERC Research Papers Series, Research Paper Sixty-Nine, Pp 4 and 5.
- [6]. Bobola, C. M. (2009): Factors Enhancing the Growth of “Black Markets for Foreign Exchange in Nigeria”. An Unpublished MBA Dissertation; Lagos State University, Ojo, Lagos.

- [7]. Caporale, G. M. and Cerrato, M. (2009): Black Market and official exchange rates: Long-run equilibrium and short-run dynamics centre for International Capital Markets, London Metropolitan- University.
- [8]. Ebie, S. P. O. (2007): Land Rights and Tenure as the Basis for Economic Empowerment and Housing Development.
- [9]. Enugu Metropolitan Master plan (1978) phase 2, prepared by concept Ecodesign International, Enugu.
- [10]. ENSG (1991): "Welcome to Enugu State". A Publication of Enugu State Tourism Board.
- [11]. Jiburum, U . (2002) "Mode Using Urban Residential water demand in Enugu and Owerri". An unpublished Ph.d Thesis, Department Of Urban Of Regional Planning, University of Nigeria ,Enugu Campus.
- [12]. Ibem, E.O., Anosike, M.N. and Azuh, D. E. (2011): Challenges in Public Housing Provision in the Post Independence Era in Nigeria. *International of Humon Sciences*, Vol. 8, Issue 2, 2011.
- [13]. Musa, M. (2008): "Empirical Regularities in the Behaviour of Exchange Rates and Theories of the Foreign Exchange Market". *Carnegie-Rochester Conference Series on Public Policy* 11:9 – 57.
- [14]. Oladele, P. O. (2012): Foreign Exchange Transaction in Nigeria: Determinants of Customers Preferences for Banks and Black Market Patronage. *The Journal of Commerce*. Vol. 4, No.2.
- [15]. Omoniyi, M. I. (1994): A Critical Analysis of Housing Crisis in Nigeria. *The Builder Magazine*. Vol. II No. 2 April/May 1994.
- [16]. Onyike, J.O. (2009): The Urban Housing Problem of Nigeria in the 21st Century, A Paper Presented at the Annual Conference of NIESV at EMMAUS House, Awka Anambra State, Pg. 35.
- [17]. Onwuka, N. E., Aniagolu, C. O. and Iyi, E. A. (2019): An Assessment of Parallel Foreign Exchange Market as a Veritable Source of Low Income Residential Real Estate Development Finance in Enugu Urban Area (Jan – Dec. 2017). *International Journal of Trend in Scientific Research and Development (IJTSRD)* Vol. 3, Issue 2, Jan – Feb. 2019, www.ijtsrd.com.
- [18]. Nnametu, J. N. (2012): "An Evaluation of Rental Housing Affordability by Staff of Teritiary Institutions in Owerri, Imo State. An Unpublished M.Sc Thesis Submitted to Department of Estate Management, Nnamdi Azikiwe University Awka.
- [19]. Nnanna et al (2005): Financial Markets in Nigeria. A Publication of Central Bank of Nigeria (CBN).
- [20]. National Population Commission, NPC (2014): Census figure projected to 2014, Official Gazette, Enugu.

IOSR Journal of Business and Management (IOSR-JBM) is UGC approved Journal with SI. No. 4481, Journal no. 46879.

Aniagolu Celestine Obinna. " An Analysis of the Impact of Parallel Foreign Exchange Market on Low Income Residential Housing Development in Enugu Urban Area.". *IOSR Journal of Business and Management (IOSR-JBM)*, Vol. 21, No. 4, 2019, pp. -37-46