DOMESTIC PRICE DYNAMICS AND PERSONAL INCOME: A GENERALIZED AUTO REGRESSIVE CONDITIONAL HETEROSKEDASTICITY APPROACH

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ABSTRACT

The study examined effect of domestic price changes on personal income in Nigeria for the period spanning from 2010Q1 to 2022Q4. The major objective of the study is to ascertain if change in prices have positive or adverse effect on per capita income within the reviewed period. Stable demand and supply- determined prices stimulate stable disposable and real income by allocating values to the available goods and services and consequently stimulate robust per capita income. However it appears that the Nigeria has not attained this, as change in prices is the bane while real personal income and disposable income has deteriorated over the years and consequently the cost of living becomes very high. This calls for investigation. Thus, this study obtained secondary data from the Central Bank of Nigeria Statistical Bulletin of various issues, and tested same using unit root test, Autoregressive distributed lag (ARDL), General Autoregressive conditional heteroskedasticity (GARCH) and Granger causality test. The study found a long run relationship between per capita income and domestic prices changes; a GARCH effect on per capita income; and persistent domestic price dynamics. This implies that domestic price changes are determined by demand and supply, hence, susceptible to unexpected movements and shocks. The study therefore recommends that government should provide enabling environment for a stable, virile and predictable market determined prices; also provide price policies that will engender confidence in prices to the market participants so as to discourage speculation.

INTRODUCTION

Income effect as postulated in economic theory takes how changes in price affect choices of consumption and its patterns by way of altering the consumers' purchasing power into cognizance. Economic theory asserts that increment in prices of goods and services decreases purchasing power of consumers. Income effect implies a change in consumers' purchasing power due to price variations in goods and services. That is to say that as price increases, demand decreases. Price increment results in reduction in the value

of disposable income, and implies lesser demand for products. Manasseh et al. (2016) asserts that rise in prices culminate into two different effects: income effect and substitution effect. In the former, price increase reduces available spendable income and leads to reduction in demand; in the latter if the price increase of the goods and services is high for such goods that have substitutes, customers will patronize substitutes with relatively lower price.

Since economic theory opine that prices allocate value to goods and services, both general and personal income is expected to be robustly affected. Stability of demand and supply-determined prices will culminate to increase in the value of disposable and real income by allocating values to available goods and services, and consequently stimulating robust per capita income. However it appears the reverse is the case in Nigeria. Change in prices are prevalent. Real personal income and disposable income have deteriorated over the years and cost of living has become exorbitant.

This study therefore becomes relevant as a result of concerns in research and policy. The research concerns stems from the fact that findings will stimulate thought for further research. The policy concern emanates from the belief that findings of this study will present monetary authorities in Nigeria and beyond with knowledge that can be employed to enhance policy tools, initiatives aimed at achieving stable domestic prices while stimulating robust per capita income. The remaining part of the paper comprise literature review in section 2; methodology in section 3; result and discussion in section 4; and conclusion and recommendations in section 5.

LITERATURE REVIEW

Concept of Domestic Price Dynamics
Domestic prices, inflation, exchange rate, lending rate, debt services and stock prices affect the level of income generally and individually. Swings in domestic prices adversely affect long term growth. It is argued that higher volatile prices trigger higher volatile government income and expenditure and cause stop-start public investment. This undoubtedly impact personal income.

The theory of price opines that the point at which the benefits gained by consumers meets suppliers' marginal cost is the most optimal market price for products. Thus, Ozge (2012) opines that disposable income is affected adversely or favorably. This by extension has a direct effect on the income of an economy at large and the personal income (per capita income) in particular. Economic theory asserts that price is the quantity of payment or compensation given by a party to another in return for goods and services. It postulates that in a free market economy the market price reflects interactions between supply and demand; hence price is set to equilibrate quantity supplied with quantity demanded.

Samuelson (1965) holds that commodity prices fluctuate at random, and that price of commodities are determined by demand and supply conditions. Therefore in the presence of rational market participants, commodity and domestic prices cannot change due to destabilizing speculation. The assumptions of the fundamental hypothesis include perfect market with no transaction cost. Another hypothesis called the bull-bear hypothesis suggests that speculation strongly influence commodity prices. Adopting trend-following buying and selling strategy, speculators increase movement in domestic prices sequentially in long term upward trends called the bull market and also downward trends called the bear market.

UNCTAD (2012) asserts that commodity prices play crucial role in the economy of Nigeria which determines most of exports from mono-product to diversified products. This further portrays the importance of domestic prices in the entire economy and on individuals. Deaton and Miller (1995) observe that export diversification attractiveness is dependent on whether real prices can fluctuate in the future. In an economy, prices are costs paid for the satisfaction of wants and needs. These are prices of goods and services- that is, domestic prices, inflation, being the gradual rise in the general price level; the

lending rate being the price paid for borrowing, debt services are costs paid for obtaining loans and advances from lenders, and stock prices being the price of individual stock (unit of capital or share) of a company listed on the Stock Exchange. These prices affect income. However, such effect is yet to be determined in Nigeria as it has remained a topical issue of inconclusive debate.

Personal Income

Stewart (2000) holds that income distribution is pertinent to economic growth and development because it is a determinant of poverty levels in any given average per capita income, and helps in reducing effects of poverty on growth, income distribution triggers growth. Broadly speaking, income distribution is the total income flow among citizens. When particularized down to the average individual, what actually gets in the hands of the person is per capita income. Personal income is the per capita income of individuals.

Income distribution is pertinent for stimulating economic growth and development (Stewart, 2000) because it enhances societal cohesion, ascertains poverty levels in a given average per capita income, and reduces the effects of poverty on growth. Income distribution is a broad version of the total income flows among the citizenry. When this distribution is applied per person, what actually gets in the hands of the person is per capita income. Personal income is the per capita income of individuals. It is the income per head of each individual in a country. It is gotten when the gross domestic product is divided by the total population of the country. It is the share of a single individual from the total national output.

Domestic Prices Dynamics and Personal Income

Any factor that affect income raises serious research discourse. Economic theory affirms that increase in prices is adverse to disposable income and vice versa. Also rise in inflationary trends also negatively affects per capita income. Exchange rate appreciation favorably affects the real income while its depreciation is detrimental to income level. High lending rate exerts more disposable funds for loan servicing from the individual and therefore is inimical to per capita income, while the reverse is the case for low interest rate. High cost of stock is also detrimental to the disposable income and the reverse subsists if the stock prices are low.

Manasseh et al. (2016) studied volatility and commodity price dynamics in Nigeria, using the general auto regressive conditional heteroskedascity (GARCH) and Granger causality and found that positive relationship between changes in commodity prices and growth of the economy. Relatedly, Deaton and Miller (1995) studied the behavior of commodity price and growth in Africa; and found evidence of close positive relationship between movements of commodity prices and growth.

Also, Chris and Marcel (2011) examined the price stochastic behavior and fluctuations using six commodity markets. It was found that commodities can be an important tool for diversifying equity volatility as well as equity returns. In another stud, Machiko (2011) investigated the effects of financialisation on volatility of dynamics of commodity prices. Results indicate that financialisation is a determinant of price fluctuations alongside price fundamentals (demand and supply). Further, Ozge (2012) employed dynamic endogenous clustered factor model to ascertain the determinants of commodity price co-movements. A data base of commodity prices gotten from fundamental sources, findings indicate that co-movements in domestic prices are due to small cluster factors designated by correlations of different group of commodities.

METHODOLOGY

The focus of this study was to ascertain the effect of swings of domestic prices on personal income. The study adopted an ex post facto research design, and relied on secondary data spanning 2010 to 2022. The data was sourced from the statistical bulletin of the Central Bank of Nigeria (CBN). The study employed descriptive and econometric statistics to analyze data. The key econometric statistics used were the

Augmented Dickey Fuller (ADF) unit root test, the autoregressive distributed lag (ARDL), the general autoregressive condition heteroskedasticity (GARCH) and the Granger causality test were performed. ADF was adopted to ascertain if the variables have unit root, and to determine if the series have different order of integration, that is I(0) and I(1), different order. However if the series are integrated in the same order or integrated in the I(2) the ARDL cannot be adopted. Then if the series are found to be integrated in different order the Auto Regressive Distributive lag (ARDL) is performed to ascertain if the variables are co- integrated. The GARCH is used to capture the dynamics or volatility and also to check for the transmission and persistence. Also the Granger causality test is performed.

The following augmented model was estimated:
$$L\Delta\,LPCI = \beta_0 + \beta_1 DES + \beta_2\,DOP + \beta_3 ExR + \beta_4\,L\,Inf + \beta_5 STPR + \beta_6\,LR + +t \quad \ldots\ldots \quad (1)$$

$L = \log$, $\beta_0 =$ constant, β_1, β_2 = explanatory power of the variables, t = stochastic error term. Where: PCI is per capita income DES is a proxy for debt servicing, DOP represents domestic prices, ExR depicts exchange rate, Inf is the proxy for inflation, STPR is used to depict stock prices, LR represents the lending rate.

Unit root test (URT)
This is depicted as

$$\Delta X_{t} = \alpha_{o} + \alpha_1 t + \beta X_{t-1} + \sum_{j=1}^{m} Y_j\ \Delta X_{t-j} + \mu_1 \qquad\qquad ... (2)$$

Where:
X_t is integrating series (independent variable), β is coefficient, Y_j is integrating series (dependent variable), Δ is the first difference operator; t is the time trend; α_o is a drift; t represents the linear time trend; *m* is the lag length; μ_1 is a white noise process.

The ADRL
The ARDL co integration bounds test is employed to find the long run relationship among variables which are mixed such as some are stationery at level and some are stationery at first difference. Pesaran & Shin (1990) and Pesaran et al (2001) opines that "the ARDL co-integration technique is used in determining the long run relationship between series with different order of integration."

The GARCH Generalized AutoRegressive Conditional Heteroskedasticity Model
In time series data, if it is believed that the variance error is serially auto- correlated, the GARCH is mostly applied. The model assumes that the error term variance follows an autoregressive moving average process. It enables the prediction in the financial assets returns volatility. Also it is appropriate for assets that exhibit clustered periods of volatility in returns. In fact when variance of the error term is not constant, the GARCH is used. Heteroskedasticity in a model describes a situation where the pattern of error term variation is irregular.

Granger Causality Test
If the series are co integrated, the standard Granger causality test is constructed. The estimating equations in the form:

$$\Delta LDOP_t = \sum_{i=1}^{m-1} \beta\,\Delta LPCI_{t-1} + \sum_{i=1}^{m-1} \delta_j \Delta LDOP_{t-j} + \varepsilon_t \qquad\qquad \ldots \qquad (4)$$

$$\Delta LPCI = \sum_{i=1}^{m-1} \beta \Delta LPCI_{t-1} + \sum_{i=1}^{m-1} \lambda_j \Delta LDOP_{t-j} + \mu_1 \qquad\qquad \ldots \qquad (5)$$

Where:

LPCI$_t$ is the log of per capita income, *LDOP* is the log of domestic prices changes i.e. DES, Inf, ExR,LR, STPR*, and DOP,* μ_1 is the white noise disturbance term, ε is also the white noise disturbance term. If the probability value is equal to, or greater than 0.05, we cannot reject the null hypothesis that there is no causality between the variables, therefore we reject the alternative hypothesis. Conversely, if the p-value (the probability) is lesser than 0.05, we reject the null hypothesis that there is no causality (or that one variable does not Granger cause the other) between the variables hence we accept the alternative hypothesis that one variable Granger cause the other.

RESULTS AND DISCUSSION

Table 1: Descriptive Statistics

	PCI	DES	DOP	EXR	INF	STPR	LR
Mean	1078.146	148178.5	6492.412	85.42728	18.00558	259926.2	19.93654
Median	486.1000	25589.70	2338.500	21.88610	13.32500	1036.300	20.84000
Maximum	3268.000	941700.0	31456.00	403.5800	72.80000	1076020.	36.09000
Minimum	153.6000	67.31000	10.80000	0.546400	3.200000	16.60000	6.000000
Std. Dev.	1065.006	226747.2	9080.320	107.1208	14.64826	370942.3	7.992428
Skewness	0.937580	1.824091	1.476472	1.268588	1.984854	0.901325	0.068439
Kurtosis	2.200327	5.759386	4.069631	3.829129	6.598278	2.017611	1.995795
Jarque-Bera	9.004019	45.33413	21.37197	15.43689	62.19674	9.131706	2.225520
Probability	0.011087	0.000000	0.000023	0.000445	0.000000	0.010401	0.328651
Sum	56063.60	7705280.	337605.4	4442.219	936.2900	13516163	1036.700
Sum Sq. Dev.	57846076	2.62E+12	4.21E+09	585218.3	10943.15	7.02E+12	3257.825
Observations	52	52	52	52	52	52	52

Source: Researchers' Computation

For a statistical comparison of averages and standard deviations of the variables, descriptive results explain the theoretical relationship between the variables. Table 1 shows the mean values, standard deviation etc. of the parameters. The average (mean) is1078 for the dependent variable- (per capita income),1481, 6492, 85.42, 18.0, 259926 and 19.94 for the explanatory variables - (debt servicing, domestic prices, exchange rate, inflation, stock prices and lending rate) respectively. Furthermore, the variables dispersal from the mean (standard deviation) is in the range of 1065 for the dependent variable, while it stands at 226747, 9080, 107.2,14.64, 37094 and 7.99 also for the explanatory variables the results also depict that the variables exhibit an asymmetrical distribution with long tail to the right depicting high positive skew as above zero having values of 0.93 for the dependent variable, and 1.265280, 1.82, 1.479, 1.2825, 1.95, 0.9125 and 0.0688 for the explanatory variables. The probability of zero of the variables also explains relationship, the values of the kurtosis which quantifies whether the shape of the data of the distribution matches are 2.20 for the dependent variable and 5.6, 4.069, 3.82,.6.59, 2.01 and 1.99 for the explanatory variables (exports. respectively.

It is Interesting to note that all the variables showed high relationship. Notwithstanding this robustness and also appreciating the fluctuating nature the trend might exhibit to the normalcy of the variable distribution, we further present a theoretical case that such trends are may also lead to causal relationship between the dependent and explanatory variables. Hence this claim is further subjected to more econometric tests for more confirmation or otherwise.

Table 2: Unit Root Test Results

	Intercept Only	Decision	Trend and Intersect	Decision
LPCI	-2.9237 (-2.0091)**	I(1)	-3.5063 (-1.9419)**	I(1)
LDES	-2.9266 (-0.7317)**	I(1)	-3.5107 (-0.4093)*	I(1)
LDOP	-3.5811 (-4.3282)	I(0)	-2. 9266 (-4.3282)*	I(0)
LEXR	-2.9251 (1.4410)**	I(1)	-3.5297 (0.1414)**	I(1)
LINF	-3.5811(-5.2452)	I(0)	-3.5107 (-5.2017)	I(0)
LLR	-2.9314 (-0.7142)**	I(1)	-4.1705 (-3.7716)*	I(1)
LSTPR	-0.3547 (-3.5654)	I(0)	-2.0670 (-4.1484)	I(0)

* (**) *** Significant at 1% (5%) 10% level of significance
Source: Researchers' Computation

For the unit root tests results as in Table 2; the Augmented Dickey Fuller unit root test depicts that the variables are integrated of order I(0) and order 1, that is, I(1) at 1%, 5% and 10% level of significance respectively as the case may be. Since variables are mixed where some are stationery at level and some are stationery at first difference, we adopt the Auto regressive Distributive Lag ARDL. In the time series domain, ARDL co integration bounds can be used to find the long run relationship among variables Therefore we go a step further to employ the co integration test procedures to test the co -integration among the variables.

Table 3: ARDL Results

Dependent Variable: PCI
Method: ARDL
Dynamic regressors (4 lags, automatic): DES DOP EXR INF LR STPR
Fixed regressors: C @TREND

Variable	Coefficient	Std. Error	t-Statistic	Prob.*
PCI(-1)	1.048092	0.177133	5.916991	0.0000
PCI(-2)	-0.502851	0.137717	-3.651334	0.0011
DES	0.000761	0.000133	5.724561	0.0000
DES(-1)	9.70E-05	0.000183	0.531172	0.5996
DES(-2)	-0.000497	0.000187	-2.656164	0.0131
DOP	0.155683	0.062522	2.490067	0.0192
DOP(-1)	-0.046236	0.074510	-0.620536	0.5401
DOP(-2)	-0.258412	0.089354	-2.891995	0.0075
DOP(-3)	0.330150	0.136546	2.417856	0.0226
DOP(-4)	-0.151287	0.104890	-1.442336	0.1607
EXR	-1.087491	1.207702	-0.900463	0.3758
INF	-1.183311	1.286315	-0.919923	0.3658
LR	1.676564	4.509034	0.371823	0.7129
LR(-1)	-5.409188	4.599985	-1.175914	0.2499
STPR	0.000239	0.000203	1.174952	0.2503
STPR(-1)	0.000747	0.000213	3.501141	0.0016
STPR(-2)	-0.000985	0.000288	-3.418826	0.0020
STPR(-3)	0.001260	0.000324	3.883498	0.0006
STPR(-4)	-0.000442	0.000217	-2.034387	0.0518
C	384.9252	101.2770	3.800715	0.0007
@TREND	-9.384986	5.826594	-1.610716	0.1189

R-squared	0.994978	Mean dependent var	1150.369
Adjusted R-squared	0.991258	S.D. dependent var	1077.692
S.E. of regression	100.7626	Akaike info criterion	12.36305

Sum squared resid	274134.0	Schwarz criterion	13.18170
Log likelihood	-275.7132	Hannan-Quinn criter.	12.67242
F-statistic	267.4680	Durbin-Watson stat	2.061195
Prob(F-statistic)	0.000000		

Source: Researchers' Computation

Table 3 shows the Peseran critical value (2005) upper and lower bands at 1% are 5.250 and 4.068; that of 5% are 3.910 and 2.962; while at 10% the bands are 3.346 and 2.406 ; respectively. The calculated F-value is 267.4 is higher than the bands. Therefore we cannot accept the null hypothesis and conclude that the variables are co integrated. There is an evidence of long run relationship between the explanatory and dependent variables.

Table 4: GARCH Results
Dependent variable PCI

Variable	Coefficient	Std. Error	z-Statistic	Prob.
DES	0.000954	0.000413	2.308113	0.0210
DOP	0.115385	0.036840	3.132054	0.0017
EXR	-6.279030	2.416986	-2.597876	0.0094
INF	-1.612694	5.672709	-0.284290	0.7762
LR	11.70223	9.313481	1.256483	0.2089
STPR	0.001504	0.000473	3.178907	0.0015
Variance Equation				
C	49396.48	63897.89	0.773053	0.4395
RESID(-1)^2	0.143897	0.263374	0.546358	0.5848
GARCH(-1)	0.546683	0.450739	1.212859	0.2252
DES	-0.043556	0.074391	-0.585498	0.5582
DOP	-0.436855	5.214670	-0.083774	0.9332
EXR	-2.272524	537.6913	-0.004226	0.9966
INF	-804.4392	636.2110	-1.264422	0.2061
LR	-8.104599	2251.770	-0.003599	0.9971
STPR	-0.005078	0.105124	-0.048307	0.9615
R-squared	0.925651	Mean dependent var		1078.146
Adjusted R-squared	0.917569	S.D. dependent var		1065.006
S.E. of regression	305.7707	Akaike info criterion		14.26554
Sum squared resid	4300804.	Schwarz criterion		14.82840
Log likelihood	-355.9041	Hannan-Quinn criter.		14.48133
Durbin-Watson stat	0.660325			

Source: Researchers' Computation

The results of the estimation of the GARCH model in Table 4 show that the debt servicing, domestic prices, inflation, exchange rate, stock prices and lending rate, have significance effects on the dependent variable at 5% level of significance. The coefficient of debt servicing, domestic prices, inflation, exchange rate, stock prices and lending rate of the mean equation of the PCI are respectively -0.009, 0.11, -1.61, -6.2, 0.001 and -11.6 at the probability of 0.05, only inflation and lending rate were insignificant.

The result of the estimation of the conditional variance of equation for dependent variable show that debt servicing, domestic prices, inflation, exchange rate, stock prices and lending rate are volatile because the coefficient of the ARCH component is significant at 5%. Also the summation of the coefficients of the ARCH and GARCH component of 0.14 and 0.54 is about 1. We conclude that the domestic price

dynamics is persistent. Also this result is justifiably robust when the model is adjusted for heteroschedasticity through the standard error and covariance

The result of estimation of the mean equation of debt servicing, domestic prices, inflation, exchange rate, stock prices and lending rate depict there is negative significant relationship between the explanatory variables and PCI. The ARCH component of conditional variance shows evidence of volatility at 5 per cent level of significance. Also the summation of the coefficients for ARCH and GARCH components of 0.8804 and .0.1 gives 1 and above and indicates that the volatility persists.

The z statistic depicts that DES, DOP, EXR, and Stock prices are significant at 5%.; while inflation and lending rate depict insignificance. This shows the persistence of GARCH effect indicating that the previous quarter domestic DES, DOP, EXR, and Stock prices volatility can influence or be transmitted to the current income distribution variation.

Table 5: Pairwise Granger Causality Result

Null Hypothesis	F- statistic	Probability	Decision	Type of causality
$LDeS \neq> LPCI$	1.5288	0.2223	Not Rejected	No Causality
$PCI \neq> LDeS$	0.0044	0.9474	Not Rejected	No Causality
$LDOP \neq> LPCI$	3.2913	0.0759	Not Rejected	No Causality
$LPCI > LDOP$	0.7193	0.4004	Not Rejected	No Causality
$LExR \neq> LPCI$	9.9202	0.0028	Rejected	Causality
$LPCI \neq> LExR$	0.1650	0.6854	Not Rejected	No Causality
$LINF \neq> LPCI$	0.00032	0.9858	Not Rejected	No Causality
$LPCI \neq> LINF$	1.0958	0.3011	Not Rejected	No Causality
$LLR \neq> LPCI$	0.1424	0.7058	Not Rejected	No Causality
$LPCI \neq> LLR$	2.2822	0.1374	No Rejected	No Causality
$LSTPR \neq> LPCI$	14.3223	0.0004	Rejected	Causality
$LPCI \neq> LSTPR$	6.3432	0.0152	Rejected	Causality

Source- Researcher's Computation

The Pair-wise Granger Causality test in Table 5 demonstrates that the probability of the causality from per capita income to debt servicing is 0.222. This is greater than 0.05 and depicts no causality and likewise the probability from debt servicing to per capita income is 0.947 is greater than 0.05 and depicting no causality. The probability of the causality from domestic prices to per capita income is depicted as 0.07. This is greater than 0.05 and depicts no causality and likewise the probability from per capita income to domestic prices is 0.40 is greater than 0.05 and depicting no causality.

Furthermore the probability of the causality from exchange rate to per capita income is depicted as 0.0028. This is not greater than 0.05 and depicts causality; however the probability from per capita income to exchange rate is 0.68 is greater than 0.05 and depicting no causality. Going further, the probability of the causality from inflation to per capita income is depicted as 0.982. This is greater than 0.05 and depicts no causality and likewise the probability from per capita income to inflation is 0.98 is greater than 0.05 and depicting no causality.

The probability of the causality from lending rate to per capita income is depicted as 0.70. This is greater than 0.05 and depicts no causality and likewise the probability from financial development to Gross Domestic Product is 0.13 is greater than 0.05 and depicting no causality.

The probability of the causality from stock prices to per capita income is depicted as0.0 004. This is not greater than 0.05 and depicts causality and likewise the probability from per capita income to stock prices is 0.015 is also not greater than 0.05 and depicting causality

In summary, no causality exists among debt servicing and per capita income; domestic prices and per capita income, lending rate and per capita income; inflation and per capita income; there exists a bidirectional causality between stock prices and per capita income.

The forgoing results shows that there is a long run relationship existing between per capita income and domestic prices changes. There is GARCH effect on the per capita income. The domestic price dynamics is persistent. There is no causality among debt servicing and per capita income; domestic prices and per capita income, lending rate and per capita income; inflation and per capita income; also a bi-directional causality subsists between stock prices and per capita income. These findings negate the findings of Manasseh et al. (2016) and Deaton and Miller (1995), while corroborating that of Chris and Marcel (2011). Domestic prices movements have insignificantly explained the robustness or otherwise in the per capita income as it have adversely affected income per person in Nigeria over the reviewed period.

CONCLUSION AND RECOMMENDATIONS

Data obtained from the CBN's Statistical Bulletin was used to ascertain the effects of quakes in domestic prices on per capita income of individuals. Adopting both descriptive and econometric statistics for data analysis, we found that dynamics in domestic prices have adverse effect on per capita income and that the effect is persistent. This calls for urgent steps to be taken to circumvent probable unfavorable consequences in the future. The findings have far-reaching implications. Basically in Nigeria, domestic prices changes are determined by demand and supply, therefore susceptible to changes, movements and shocks that are unanticipated. This is so since other factors determine demand and supply distinct from prices.

Therefore, the study recommends that government should provide price policies that will engender confidence in prices to the market participants so as to discourage speculation. A holistic approach and action is to be undertaken to circumvent the effects of price shocks on the individuals and their income. Inflation rate should be monitored to desirable single digit level. Exchange rate fluctuations should be monitored to avoid the crash of the domestic currency. Government should provide enabling environment for a stable, virile and predictable market determined prices.

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