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GLOBAL FINANCIAL CRISIS AND NIGERIA ECONOMY

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Abstract

This paper discusses the global financial crisis and Nigeria Economy. The crisis started with the US mortgage default cumulated to the system wide credit collapse and finally to the collapse of the global economy. The causes of the crisis are discussed in point. The New classical framework for the explanation of the current economic crisis is given. The ordinary least square Technique of analysis will be adopted; dummies will be used to capture qualitative variables. Also highlighted are the effects of the crisis on the Nigerian economy. Measures for overcoming the problems are advanced. The paper concludes that the crisis provide an opportunity and rationale to move more quickly to address overdue reforms in areas as diverse as financial regulation and inclusion, trade competition and public sector improvement in the Nigerian economy.

Introduction

The topic of this paper is not only timely but also critical given the enormity of the challenges that confront the global economy during that period. In 2008, the world economy was severely jolted by a major economic meltdown which affected several sectors. It started as an essentially American recession which was the definite result of decades of economic mismanagement in both public and private sectors, it quickly attained the status of a global meltdown. Economies in all the continents and espousing different ideologies and institutional organization were quickly caught in the inevitable web of multifarious networks which are the hallmark of globalization. The growing liberalization of international trade attained in the last twenty years of the 21th century, propelled by the reform policies championed by the world Bank and the International Monetary Fund (IMF) prepared the ground for full blown globalization. This new system of doing international business may be defined as the growing integration of markets in goods, services and capital across national borders. With the emergence of globalization, economic crisis can no longer be confined to one country, or even an economic community.

The Nigerian economy has demonstrated particular vulnerability to the emergent global economic crisis. Driven by crude oil and gas, the nation's economy is anchored on the petroleum sector, which accounts for 80 percent of government's annual revenue and foreign exchange earnings. The petroleum sector also contributes about 50 percent of Nigeria's annual gross domestic product. The global oil and gas industry enjoyed tremendous price increases associated with sustained economic growth around the world until mid-2008, when the price of crude oil peaked at US\$147.00 per barrel. While the boom lasted, Nigeria became a major beneficiary of crude oil price upswings, increasing its foreign exchange reserves to an unprecedented level of about US\$60 billion. The windfall also afforded Nigeria the rare opportunity to exit the Paris Club of creditors, in a development which catalyzed the discharge of its foreign debt obligations through the payment of US\$18 billion, while the sum of US\$12 billion was waived by creditors, leaving a paltry sum of US\$2 billion. However, with the advent of the global economic turmoil, global oil prices plummeted to less than US\$40.00 per barrel by the 1st quarter of 2009. This development has unleashed an external shock on the Nigerian economy. The sharp drop in oil revenue



INTERNATIONAL JOURNAL OF RESEARCH SCIENCE & MANAGEMENT

has reversed few years of fiscal surpluses to severe deficits. The dominance of the oil sector has therefore impacted negatively on Nigeria's macroeconomic performance, particularly since the emergence of the global crisis.

Igbatayo (2011) opined that in the case of Nigeria, the emergent global crisis has impacted negatively on the nation's financial sector, triggering instability in banks and the capital market. The banking sector is shaken particularly hard, causing the Central Bank to inject more than N400 billion naira or US\$2.72 billion into vulnerable banks to forestall systemic collapse in the sector. In the capital market, equity prices, in the past couple of years, have fallen sharply, with the All-Share Index at the Nigerian Stock Exchange down by 33 percent at the end of December 2009, from levels recorded in December, 2008. Here in Nigeria, how are we affected by the ravaging financial crisis? What measures are needed to cushion the impact on the economy and the people? It is important to stress that the global economy is inter-related. No country is isolated. What affects one country directly or indirectly affects the others. The instability in Nigeria's financial markets poses severe challenges to policy makers, requiring urgent measures to stem the tide. The 2008/2009 global economic meltdown was a challenge to the Nigerian economy. As a major petroleum-producing country, Nigeria was not insulated from its effects. An important effect of the global meltdown was the decline in the demand for crude petroleum. Crude prices fell precipitately from about \$150.00 per barrel in 2008 to less than \$40.00 early in 2009, a development that subjected budgets at all tiers of government to drastic downsizing. In a way, the recent global meltdown may be considered as a trial run and a simulation of conditions in Nigeria's post petroleum era.

Therefore the objective of this paper is to elaborate the challenges of the global economic crisis and its effects on Nigeria's financial markets. This paper is divided into five sections, the first section will look at the Theoretical Framework, while the second section will look at the challenges for the Nigerian economy, while the third section will look at recommendations, the final section summaries the paper.

Theoretical framework

Hoover (2013) believes that the New Classical Macroeconomics suggests a rejection of the Keynesian economics and a revival of classical economics, the new classical school began with Lucas (1981) attempts to provide micro foundations for the Keynesian labour market. Lucas applied the rule that equilibrium in a market occurs when quantity supplied equals quantity demanded. This turned out to be a radical step. Because involuntary unemployment is exactly the situation in which the amount of labour supplied exceeds the amount demanded, their analysis leaves no room at all for involuntary unemployment.

Keynes's view was that recessions occur when aggregate demand falls largely as a result of a fall in private investment causing firms to produce below their capacity. Producing less, firms require fewer workers, and thus employment falls. Firms, for reasons that Keynesian economists continue to debate, fail to cut wages to as low a level as job seekers will accept, and so involuntary unemployment rises. The new classical rejects this step as irrational. Involuntary unemployment would present firms with an opportunity to raise profits by paying workers a lower wage. If firms fail to take this opportunity, then they would not be optimizing. Employed workers should not be able to resist such wage cuts effectively since the unemployed stand ready to take their places at the lower wage. Keynesian economics would appear, then, to rest either on market imperfections or on irrationality, both of which Keynes denied.

Business cycle theory opined that the economy is often buffeted by unexpected shocks. Shocks to aggregate demand are typically unanticipated changes in monetary or fiscal policy. Shocks to aggregate supply are typically changes in productivity that may result, for example, from transient changes to technology, prices of raw materials, or the organization of production. Ideally firms will choose to produce more and pay workers more when the economy is hit by favorable shocks and less when hit by unfavorable shocks (Alan, 2010).



The new classical school popularized the rational expectations, because economic decisions are forward looking. To know whether today is a day for work or for leisure, we need to decide whether tomorrow will be more or less productive than today; in short, we must have an expectation of the future.

The mathematical derivations of dynamic stochastic general equilibrium (DSGE) models and new Keynesian Phillips curves (NKPCs), both of which incorporate 'rational expectations', fail to recognize that when there are unanticipated changes, conditional expectations are neither unbiased nor minimum mean-squared error (MMSE) predictors, and that better predictors can be provided by robust devices. Further, given the prevalence of such changes, learning about the

Post- change scenario is both difficult, and itself generates further non-stationarities (Ersan and Aykut; 2010).

Model specification

$$ASI = f(MCAP, OILP, XCHR, POLS, INFL, UNMP, GDP, INV) \dots \dots \dots (1)$$

$$ASIt = \alpha_0 + \alpha_1 MCAP + \alpha_2 OILP + \alpha_3 XCHR + \alpha_4 POLS + \alpha_5 INFL + \alpha_6 UNMP + \alpha_7 GDP + \alpha_8 INV \dots (2)$$

$$ASIt = \alpha_0 + \alpha_1 MCAP_t + \alpha_2 OILP_t + \alpha_3 XCHR_t + \alpha_4 POLS_t + \alpha_5 INFL_t + \alpha_6 UNMP_t + \alpha_7 GDP_t + \alpha_8 INV_t + U_t \dots (3)$$

The above model is transformed using Koyck's transformation in order to integrate expectations into the equation (3) (Gujarati and Porter, 2009).

$$ASIt = \alpha (1 - \lambda) + \beta_0 MCAP_t + \beta_1 OILP_t + \beta_2 XCHR_t + \beta_3 POLS_t + \beta_4 INFL_t + \beta_5 UNMP_t + \beta_6 GDP_t + \beta_7 INV_t + \lambda ASIt-1 + V_t \dots \dots \dots (4)$$

Where: ASI= All Share Index, MCAP= Market Capitalization, OILP=Oil Price, XCHR= Exchange Rate, INF= Inflation Rate, UNMP= Unemployment Rate, GDP= Gross Domestic Product, INV= Investment (Proxy National Savings).

λ simultaneous captures the impact of the lagged values of inflation and the lagged values of the explanatory variables. Note that: $0 < \lambda < 1$, t is the time trend and μ is the white noise (stochastic term) which is assumed according to OLS as normally distributed with zero mean and constant variance. The parameter for the estimation from equation 4 is $\beta_0 > 0$, $\beta_1 > 0$, $\beta_2 < 0$, $\beta_3 > 0$, $\beta_4 < 0$, $\beta_5 < 0$, $\beta_6 > 0$, $\beta_7 > 0$.



Data analysis and interpretation of result

Dependent Variable: ASI
 Method: Least Squares
 Date: 02/24/14 Time: 14:02
 Sample (adjusted): 1985 2010
 Included observations: 24 after adjustments

Variable	Coefficient	Std. Error	t-Statistic	Prob.
GDP_AT_CONSTANT_PRICES	1.066111	0.557927	1.910844	0.0783
GOVT_EXPT	0.054988	0.183183	0.300180	0.7688
INFLATION	1485.982	937.1905	1.585571	0.1369
M2	-0.440737	0.144903	-3.041590	0.0095
MCAP	123.9278	5.368314	23.08504	0.0000
NAT_SAVT	-0.090531	0.326659	-0.277141	0.7860
OILP	9915.396	4413.208	2.246755	0.0427
POLS	122064.7	100310.7	1.216866	0.2453
RAT_UNMT	-1601.968	2519.464	-0.635837	0.5359
XCHR	2152.210	1099.349	1.957713	0.0721
C	-489080.5	136184.0	-3.591322	0.0033
R-squared	0.999140	Mean dependent var	339462.9	
Adjusted R-squared	0.998479	S.D. dependent var	1614705.	
S.E. of regression	62972.26	Akaike info criterion	25.24234	
Sum squared resid	5.16E+10	Schwarz criterion	25.78228	
Log likelihood	-291.9081	Hannan-Quinn criter.	25.38558	
F-statistic	1510.923	Durbin-Watson stat	2.135195	
Prob(F-statistic)	0.000000			

The model specification is as:

$$ASI_t = -489080.5 + 1.07GDP_{CONSTANT}_t + 0.1GOVTEXPT_t + 1485.9INF_t - 0.44M2_t + 123.9MCAP_t - 0.1NATSt + 9915.4OILPt + 122064.7POLSt - 1602RAT_UNMT_t + 2152.2XCHR_t$$

The time series result above makes use of the OLS method. Here, a unit increase in the GDPCONSTANT will increase ASI by 1.07units. This result is significant at 10% level.

Also, a unit increase in M2 will decrease the ASI by -0.44units holding other variables constant, and it is significant at 1%, 5% and 10% levels.

A unit increase in MCAP will increase ASI by 123.9units holding other variables constant, and is significant at 1%, 5% and 10% levels.

OILP has a strong positive impact on ASI, as a unit increase in OILP increases ASI by 9915.4 units holding other variables constant. This result is significant at 5% and 10% levels.

The impact of political stability was positive on the ASI, but is insignificant.

Lastly, a unit increase in XCHR, increased ASI by 2152.2 holding other variables constant; and is significant at 10% level.

The R² Adjusted is over 0.9, meaning only less than 10% variation in the explanatory variable is explained by the error term.



INTERNATIONAL JOURNAL OF RESEARCH SCIENCE & MANAGEMENT

The model is of Good fit since F-Statistic (1510) is greater than Prob (F-Statistic (0.0000)). Also, the Prob-Value of the F-Statistic is less than 1%, 5% and 10%.

The Durbin-Watson Statistic (2.16) is close to 2.00 and so there is absence of First Order Serial-Correlation.

Findings

- The global financial crisis has a strong impact on oil price and the price of bonny light further impacted positively on the ASI.
- Political Stability is an important qualitative variable that impacts positively on those stock market indicators or financial instruments. Though it was insignificant in this study.
- MCAP also impacts positively on ASI and it is significant.
- Furthermore, XCHR is an important macroeconomic instrument; and it impacts positively on ASI. Finally, as the GDP CONSTANT increases, the ASI also increases. Meaning the ASI is positively correlated with economic growth.

Challenges for Nigeria

The 2008/2009 global economic meltdown was a challenge to the Nigerian economy. Nigeria being a major petroleum producing country; it was not insulated from its effects. An important effect of the recent global meltdown was the decline in the demand for crude petroleum .Crude prices fell precipitately from \$150.00 per barrel in 2008 to less than \$40.00 early in 2009, a development that subjected budgets at all tiers of government to drastic downsizing. The average Nigeria is easily seduced by conspicuous and wasteful consumption. This orientation predisposes him to an extreme short term perspective. He prefers to trade rather than produce, when he saves, he seeks financial instrument with short tenure. He is in constant search for the lucky break that makes him a multimillionaire overnight. The few companies interested in production mostly employ outmodel machinery, equipment and processes. Workers as well as managers are not exposed to the most recent technological development in their sectors.

Banking sector

The banking sector was however more hit than other sectors. But for the sharp regression in the crude oil price and the stock exchanges, the Nigerian banking system would not have experienced much from the global economic recession. The first impact of the crisis on the sector was the withdrawal of credit lines to Nigerian banks by foreign banks thus resulting to paucity of funds in the industry. The greatest impact however came indirectly through loans granted by banks to oil companies which incurred heavy losses and could not repay the loans borrowed from banks. Also as share prices fell on the stock exchange investors suffered heavy capital losses which eroded the value of investors and hence they could not repay the share purchase loan. These two factors led to severe scarcity of funds in the banking industry and huge non-performing loans.

Oil sector

The global financial crises occasioned credit freeze which led to declining consumer and industrial demand in Nigeria. As a result demand for crude oil as well as crude oil price fell drastically. From \$138.74 per barrel as at June 30th average price of Nigeria's crude, Bonny light dropped to \$61.14 per barrel by June 30th 2009. The Federal collected revenue fell to N1.04 trillion from N1.88 trillion during the same period. Also, instead of net foreign exchange inflow of 0.9 billion recorded by the Central Bank of Nigeria (CBN) as at June 30th 2008, the nation recorded net foreign exchange outflow of \$3.69 billion as at June 30th 2009. Also, reflecting the impact of the global economic recession the nation's external reserve dropped from a height of \$62 billion in third quarter Of 2008 to about \$42 billion in first quarter of 2009.



INTERNATIONAL JOURNAL OF RESEARCH SCIENCE & MANAGEMENT

Industrial sector

Another Sector that was hit by the crisis is the industry. The devastating impact of the global financial crisis which hit the country in the second half of 2008, the rough the price of crude oil, which accounts for over 80% of the country's foreign exchange earning, ushered in spates of decline industry activities and massive closure of industries. No sector was left out from food beverages and tobacco sector to the textile, iron and steel, electrical and electronic, motor vehicles and assembly sector, and others, the story is the same.

Recommendations

- Nigerian economy is a mono-economy; any crash on the price of oil internationally will cripple our economy. So it is a matter of urgency for the Nigerian economy to divest into agriculture, manufacturing, information technology etc.
- Political stability is an important factor that encourages investment in an economy. So our nascent democracy should be nurtured.
- The Central Bank of Nigeria's propagation of financial inclusion should be embraced, as it will empower the masses through the availability of cheap funds, trigger off investment, employment and an increase in aggregate demand.
- The exchange rate is an important instrument in the financial market, and as such should be allowed to be determined by market.

Conclusion

The global economic meltdown and the implications on the Nigerian economy were discussed. A number of possible initiatives for fast tracking the economy and the more daunting task of preparing Nigeria has the resources and management capability of becoming a major player in the global economy. An all round national re-orientation is all Nigeria needs to start moving to the promise Land.

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