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Theory of Catallactics, misapplication in monetary policy in developing economies and Consequences

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ABSTRACT

The paper strive to solve, a specific macroeconomic error that emerge in the dispensing of the monetary policy by the Central Banks of Africa. As a result unable to address the desired economic growth monetarily, when quality fiscal policy is consolidated. It therefore propound a model assumed to be effective in ensuring a realistic health status of an economy, very friendly to developing countries as a theoretical prospective.

Keywords: *monetary economics, monetary policy, fiscal policy, macroeconomics, development theory*

1. BACKGROUND & INTRODUCTION

It is theoretically argued, monetary policy transmission mechanism, is the “channels” through which the monetary policy actions by the Central Bank, impact economic activities in the economy in general and price in particular (Kuttner and Mosser 2002; Ireland, 2006). I therefore posit that, monetary actions drawn-out of a careless use of imaginary construction in the direct and indirect exchange activities of the market, result to a methodical application, which is strange to the realities of the market activities and has a grievous consequence of a fallacious economic indicative prediction with a misguided policies to the future of the market, hence frustrate strategic employment of capital and labour to the development of such economies. The theory of monetary policy transmission mechanism defined seven major channels that is observed to be effective for an economy to experience policy-effects, which are

- i. Interest rate
- ii. Credit / Bank Lending
- iii. Exchange Rate
- iv. Asset Prices
- v. Expectations
- vi. Confidence
- vii. Risk-Taking

Blanchard (2003), focusing on interest rate as major channel comparable to the others, asserted, monetary policy can have large and long lasting effects on real interest rates with it implications on activities; during a conference paper presentation in honour of James Tobin at MIT School, and went ahead to state, there are large theoretical and empirical based literature that support interest rate, inflation and innovation in money activities towards economic growth, which to him, their econometric result are unconvincing. And finally suggested as monetarist, it require a stretch of an extra mile in the direction of rethinking of fiscal policy, to enable a structured redesign of monetary policy as automatic stabilizer. In his best understanding of developed economy, their fiscal policy for economic growth is suffering from schizophrenia. This paper therefore call for a reasonable probing of developing economy, which in the otherwise lack original developed fiscal policy that respond effectively with it endogenous economic market

dynamics. Taken a cue from Blanchard assertion, indicate the necessity to re-examine the definition and scope of monetary policy to embrace contemporary challenges of economic growth and development. Historically, monetary policy is argumentatively defined as, all actions of government, central banks and other public authorities that influence the quality of money and bank credit. This therefore embraces policies relating to such things as choice of the nation's monetary standard; determination of the value of the monetary unit in terms of a metal or foreign currencies; determination of the types and amounts of the government's own monetary issues; establishment of a central banking system and determination of its powers and rules for its operation; and policies concerning the establishment, regulation of commercial banks and other related financial institutions. Delving deeper into the element of monetary policy, it will be observed that, "Like all economic policies, monetary policy has three interrelated elements which are

- i. Selection of objectives
- ii. Implementation
- iii. Implicit theory of the relationships between actions and effects.

All this three elements present problems of choice and are continuing subjects of controversy. Furthermore, considering the exact problem, which the paper seek to address, it has become intellectually appropriate to briefly diagnose the evolution of monetary policy and it related objectives. Monetary policy, in the modern sense, is a deliberate and continuous management of the money supply to promote selected social and economic objectives, which is largely a product of the twentieth century, especially the decades since World War (I). In the earlier period, when most countries were on either gold or a bimetallic standard, the primary and overriding objective of monetary policy was to maintain and redeem the ability of the nation's money in the primary metal, both domestically and internationally. A decline of the nation's metallic reserves to dangerously low level, or any other threat to redeem ability, became a signal for monetary and credit restriction, to avoid whatever might be its other economic effects. When redeem ability seemed secured, monetary policy was used to promote other objectives—to deal with panics, crises, and other credit stringencies and even to expand money somewhat when businesses were depressed. But such intervention was sporadic rather than continuous and its purposes limited rather than ambitious. The international gold standard of the pre-1914 period was not purely

automatic, but it was managed only marginally. Many forces have contributed to the change and growth of monetary policy since World War (I). One set of forces includes the breakdown of the international gold standard and other changes and crises in monetary system's—inflation during and following World War (I) and the long period of suspension of gold redeem ability in most countries, the change and insecure nature of the gold and gold exchange standards re-established in the 1920s, the renewed breakdown of gold standards during the great depression of the 1930s, and world-wide inflation during and following World War (II). All these had profound effects on attitudes toward monetary policy. Both countries that had too little gold and those that had too much shifted to the view that the state of their gold reserves was no longer an adequate guide to policy and that new objective and guides should be developed. Monetary actions became increasingly less sporadic, limited, more continuous and ambitious in scope.

The goal of this study, is to stress on the extent of standard deviation of the original intended theoretical prospective of the monetary policy on the material market, in this instance focus on developing economies through the services of it Central Banks and attempt to reinstate with appropriate model, in consideration for policy formulation, in the aspect of money supply, inflation rate, interest rate targeting, to ensure price stability and general trust in currency and achieve the following as it original theoretical indicative priority, listed below;

- i. Economic growth and Stability
- ii. Lower Unemployment
- iii. Maintain predictable Exchange rate

2. THEORETICALS AND EMPIRICAL OBSERVATION

Poole (1993) “ The notion that Central Banks can provide a low-cost, over-the –counter ‘aspirein’ that will alleviate almost any ill that society face is no longer credible.” The submission of this paper is to empirically justify the causing factors, resulting in policy incredibility, especially within developing economies and alternative solutions to resolve it. (Meltzer 1993, p.233) emphasize on “the role of judgment and discretion in the conduct of monetary policy”. Which complement the argument of this paper on the call for the Central Banks to be more innovative in dispensing it monetary policy taken into consideration it jurisdictional territory of operation. This will address

the gap between the monetary policy and its impact on economic development. This requires a critical investigation into the market phenomenon, to construct an applied theoretical formulae for developing economy in a better understanding of monetary policy, paving the pathway in making the good use of majority of its labour force, not ignoring the facts that majority of the active labour force in such economies are found in the informal and semi-formal sectors as well as having a literary malfunctioning of its micro economy and finally most of such economy is engineered towards the state as an organ, being the higher recruiter of human resource capacity, with most of the State enterprise unable to meet modern technological advancement and innovation of twenty-first century. The result is, most of the State Enterprises has approached a recruitment threshold of human resource employment capacity, the consequence is, the new channeling-out graduates, are becoming redundant.

It is observed, the modern global ecology of innovation and technological advancement highly favours the private sector that has the prowess and capital resource to drive development, with government narrowing its focus in regulation and policy credibility, contrarily, will cause economy retrogression because government suffers from effective domestic fundraising capacity to achieve a lot of infrastructural, technological and innovational desires for social interest entirely and an effort to drive such agenda will result in the Central Bank responding to negative spillover effects, by financing excessive budget deficits, which is unhealthy to a strong aspiring economy.

The scope of theory and literature review of this paper, is examined under the following subtitles, to establish the grounds for further theorization under a posteriori case studies in the context of Africa.

- i. Market phenomenon
- ii. Scarcity and value
- iii. Empirical observation of policy effects and employment

I. Market Phenomenon

“There has never been any doubts and uncertainties about the scope of economic science. Ever since, people have been eager for a systematic study of economics or political economy, all have agreed that it is the task of this branch of knowledge to investigate the market phenomena” Mises

(1920|1973). To define the market phenomena, simple equations below could be derived, which is expected to guide the realistic application of monetary policy to its targeted market, and achieve the intended result drawn out from the monetary policy objective in the perspective of Ludwig Von Mises.

$$\Phi = (U + \varphi) \dots \dots \dots Eq. 1$$

$$\varphi = (M + \varepsilon) \dots \dots \dots Eq. 2$$

Derivation:

$$\Phi = (U + M + \varepsilon) \dots \dots \dots Eq. 3$$

Φ -----Market Phenomenon

U ----- Market Exchange

φ ----- Catallactics

M -----Money Price

ε -----Economic Calculation

The following are critical questions that arise, when analyzing the equations established above:

1. Is the dynamics of market exchange in the context of developing and underdeveloped economy well understood for accuracy in monetary policy instrument and application?
2. The premise, upon which the economic calculation is established, in the context of economic market forecasting in developing and underdeveloped countries accurate?
3. The structural operating mechanism of the market phenomenon in Africa, understood by the Central Banks to guide monetary policy applications?

The above outlined questions, if not accurately addressed in respect to Eq.3 above, will definitely result in the default of objectives from policy application, which this paper argue to be the major contributing factor to failures encountered by economic developmental project initiatives, instituted by World Bank and its allies for Africa, as well as other failures in scientific predictions

in political economic development in Africa over the past two decades. Experience of today and historic fact vindicate these assertion according to (Ayittey, 2002), “Failure of World Bank policies in Africa”. To argue cogently, the term ‘Value’ on goods and nominal unit need to be critically reviewed to the best theoretical deduction of this paper, while admitting that the theory and the term ‘Value’ has suffered from complex definitions in complicated circumstances historically in the Taxonomy of Economics.

[Value] is an intrinsic quality inherent in things and not merely the expression of various people’s eagerness to acquire those (Mises, 1920); therefore the definition of Value according to Mises could be classified as;

[a] Intrinsic quality in things

[b] People’s eagerness to acquire them

Theoretically, variable [a] and [b], trigger and engineer a successful market exchange. Which was simplistically submitted by Ludwig Von Mises as the priority of every action man to acquire ‘material’ and ‘ideal’ things. I therefore postulate that, for any monetary policy to gain credibility in application, its enactment should be deeply rooted in endogenous exchange market by finding out, what ‘Value’ drives the momentum of market exchange. Hogan (2006) argue in response to people eagerness to acquire things, he asserted, ‘Means-Value’ is object or action, while ‘Ends-Value’ is the feeling associated with the means value. Anthony (1987) deeply elucidate the Value-argument by submitting that, we want or seek certain things or conditions in life (Means-Value) because of the State we think, they will give us (Ends-Value). This exposes, the uniqueness of every exchange market behavioural action, because beyond the intrinsic quality contained in a material, the momentum drive of any exchange of the market, operate in the perimeter of “cultural-psyche” of the market. Therefore a theoretical understanding of the ‘Cultural-Psyche’ of any endogenous market is relevant tool guide for monetary policy instrument development. I therefore define [Cultural Psyche of a market] as the traditional thinking or behaviour of the market, which drive the desire of people to demand a particular goods or services at a certain period of time. It must be noted, when a ‘cultural-psyche’ of a market is imaginary constructed, devoid of theoretical guide, the aftermath of the policy application work contrarily to expected result and effects, and this as a posteriori deduction, has contributed largely, to a technical displacement of most developing economies, whereby majority of its labour force are disconnected to relate meaningfully

to the dynamics of the market exchange, they belong. This result into a Sisyphean economic complex as a market phenomenon and causes retrogression to growth.

II. Scarcity and Value

Acting and thinking man is the product of a universe of Scarcity in which, whatever wellbeing can be attained, is the price of toil and trouble of conduct, popularly called Economics (Mises, 1920). Scarcity becoming a major challenge of man to address, demands a compulsory knowledge of economics to minimize the effect and impact on his welfare and development. This never relate any of my ideas to Karl Marx’s school of thought, Marx new world Encyclopedia (1948), which believes that scarcity could forever be eradicated by the abolition of private property. In my perspective, such an intellectual opinion is radically ambitious and does not hold solution to the problem under debate. Rather argue that, for ‘scarcity’ as a problem to be turn into opportunity in any market phenomenon, the current relationship law, governing “Scarcity effects” and “Value of Demand” as directly proportional in macroeconomic theory, guiding policy instructions of the market monetarily, require an innovative re-construction of such market model using a factorial-force to invoke a desired change to this kind of market behaviour. Therefore the below econometric formulae seek to establish and propose a model as an approach to circumvent the negative impact of ‘scarcity effects’ to profitability in economic calculation towards any market phenomenon. Current market behaviour to Valuable-goods-in-demand is directly proportional to Scarcity effects, therefore result in a consequence of rise in price, stagnancy or retrogression in economic welfare and many more.

All things being equal, it is expected that;

$$\dot{S}_t^{n+1} \propto \dot{V}_t^{n+1} \dots \dots \dots \text{Eq.X1}$$

While;

\dot{S} Scarcity Effects

\dot{V} Value -of-Demand

The above model, is the current existing theory, governing the relation of variables in the market, as an orthodox practice, making scarcity effects as economic problem and we believe it could be circumvented to produce a new model, which turn scarcity as economic opportunity, with Scarcity operating a relation of inversely proportional to Value-of-Demand through appropriate effecting of a factorial force as stated earlier.

All things being equal, it is expected, the market under a factorial force, will be governed by this model;

$$\dot{V}_t^{n+1} \propto \left(\frac{1}{S_t^{n+1}}\right) \dots \dots \dots \text{Eq.x2}$$

$$\dot{V}_t^{n+1} = \dot{K} \left[\dot{L}_t^{n+1} \left(\frac{1}{S_t^{n+1}}\right) + (\dot{P}_t) \right] \dots \dots \dots \text{Eq.x3}$$

\dot{L}Labour function of the fiscal space

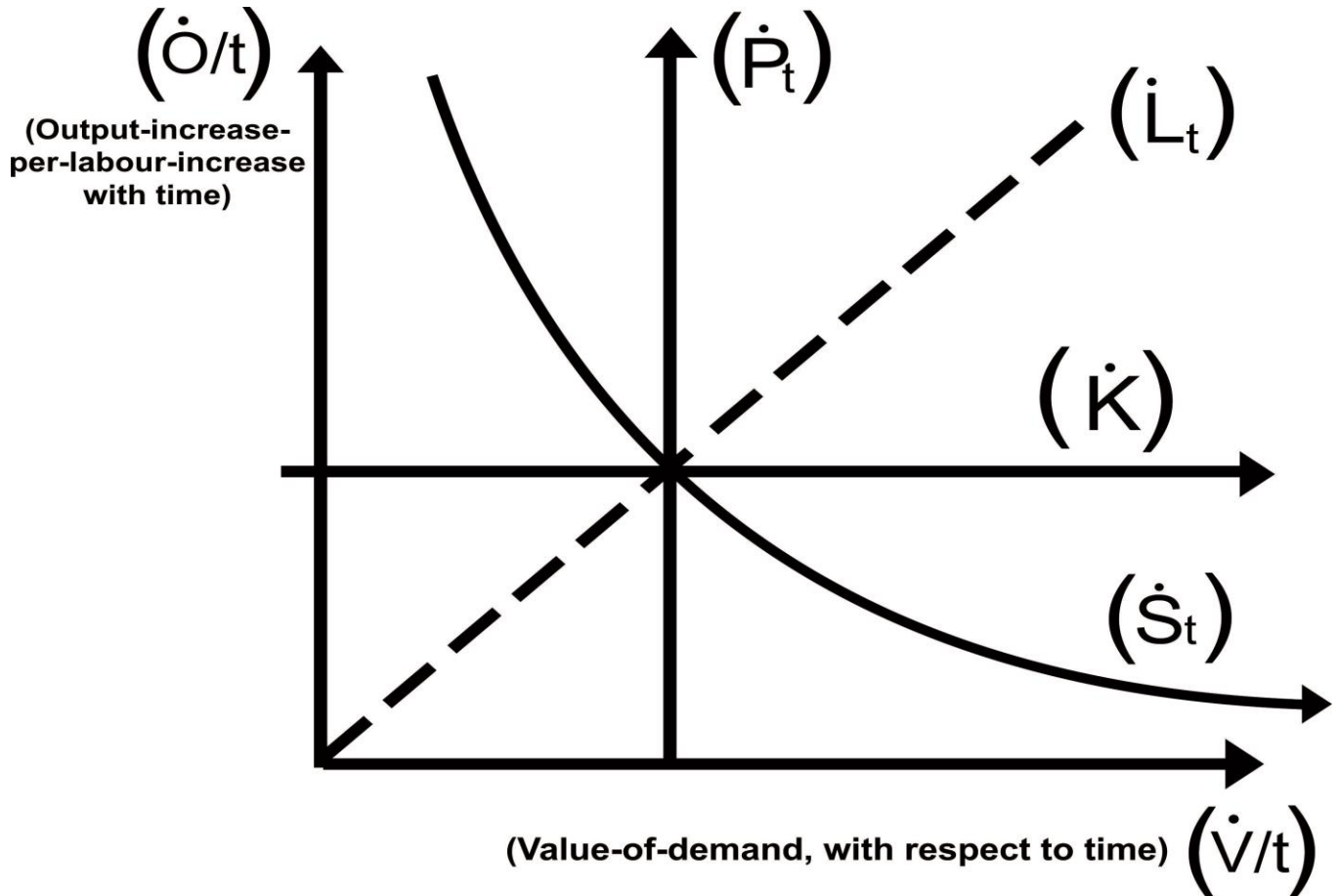
\dot{K}Accessibility to low cost of nominal capital

\dot{P}Price Stability of the Market

This theoretical model further argue that, any monetary policy instrument which ignore efficiency of labour computation into the economic calculation, especially within developing economy, having over 60% of informal and semi-formal sector, contributing to economic production, will suffer from real economic growth and reasonable social welfare progression. Secondly, ignoring to take a critical look into the accessibility of low cost of capital for production to the informal sector of the market by designing model to recognize and incorporating the activities of such informal sector mechanism, will always affect the Central Bank policy credibility in forecasting to the future of it market in it operational jurisdiction and possibly, the business of currency stabilization as well as appreciation, thereof.

FX.1

Converting Scarcity effects to market-opportunity in production output against Value-demand effects



Panel of monetary policy instrument model to engineer realistic economic development in developing countries

The model, strictly emphasize on a critical look into the word 'Efficiency-of-labour' as the equation employs. When a developing economy turns to measure efficiency-of-labour based on quality education solely, for the employment of capital to productivity in market computation, without a stratification of it market system, it exposes such economy to the curve of development retrogression. The retrogression of development emerge at a point when there is a disconnection existing between a potential full utilization of labour in an economy towards a growing curve of a Value-of -demand. Secondly, production of human resource capital by the Universities of such economy, lacking the characteristics to relate resourcefully to such developing economies due to

lack of deep understanding of the “Cultural-Psyche” of such endogenous market phenomenon, result in the advancement of labour-redundancy ecosystem, which is observed to be an equal contributor to economic retrogression.

III. Empirical Observation

The paper went further, beyond theoretical deduction to establish empirical justification, on how monetary policy in developing economy has lost credibility but operating as a kind of orthodoxy in conventions by which the Central Banks quarterly, some half of the year, engages the media on policy press release as a formality, but industries and investors hardly rely on such report for valuable decisions and actions as a guide of economic activities and investment. Some selected African countries were subjected as a study focus, which were South Africa, Egypt, Kenya, Cameroon and Ghana with the assumption that, they form the cardinal pillars of the Africa continent. Case study approach was used as Best & Kaln (1998) asserted, Case study probes deeply and analyzes interactions between factors that explain present status or influence in change or growth. Thus, data can be gathered in this regard through interviews or by observations of the researcher. Feldman (1996) states, in contrast to survey in which many people are studied, he argued that case study is an in-depth study, intensive investigation of individual or small groups of people. The paper by this method, selected professionals who fall within the Social science and business community directly in conformity to Dudoviskiy (2016), who pose that, the use of case-study approach aim to analyze specific market within the boundaries of specific environment, situations or organization. A total of hundred (100) professionals were engaged in the five listed countries, selected as the sample of the population size, taken a keen interest in the submission of (Fink and Kosecott, 1998), who argued, the size of a population from which the sample of a particular size is drawn has virtually no impact on how well a sample describe a population because the appropriate sample size is influenced by the purpose in conducting the research.

I therefore summarize the empirical findings, from the field of studies, which indicate that about 97.5% were of the view that, the policy impact of Central Bank in their various countries were seen as insignificant comparable to the fiscal space of government actions in the manipulation of the economic market. Yet 68.9% of the population size admitted and acknowledge Central Bank

role in Economic development. Strangely Kovaven (2011) research paper as a project under IMF, posit, the Ghana macroeconomic performance, that is monetary policy transmission and interest rate channel, never work in Ghanaian economy and further argued that, such dysfunction of policy effect is likely caused by shallow financial market. It became generally evidenced from the empirical works that, monetary policy in developing economy hardly has any significant effect on the status of it employment. No correlation of monetary policy and realistic stimulation of economic growth. No direct correlation of monetary policy and stabilization of fix exchange rate of currency. Even though countries randomly selected for this particular studies, denied us of highly extensive data base of government on certain information requested, it was successful with that of the records of Ghana for analytics and interpretation as elaborated below;

Table S1.

Data of production approach measurement to GDP of the Economy of Ghana (2010-2014) in GhC millions

Details	2010	2011	2012	2013	2014
AGRICULTURE	12,909.6	14,154.8	16,668.0	20,232.0	23,278.0
Crops	9,421.6	10,649.9	12,525.0	15,742.0	18,144.0
o.w. Cocoa	1,391.6	1,995.7	1,869.0	1,981.0	2,409.0
Livestock	873.0	1,003.8	1,162.0	1,223.0	1,318.0
Forestry and Logging	1,614.2	1,549.2	1,880.0	2,019.0	2,537.0
Fishing	1,000.8	951.9	1,102.0	1,249.0	1,279.0
INDUSTRY	8,294.5	14,274.4	20,438.0	25,113.0	28,767.0
Mining and Quarrying	1,012.7	4,689.9	6,961.0	8,503.0	8,640.0
o.w. Crude Oil	177.5	3,746.3	5,649.0	7,441.0	7,793.0
Manufacturing	2,941.5	3,842.5	4,263.0	4,800.0	5,342.0
Electricity	266.0	279.7	332.0	393.0	443.0
Water and Sewerage	368.3	467.4	511.0	568.0	576.0
Construction	3,706.0	4,994.9	8,370.0	10,848.0	13,766.0
SERVICES	22,183.6	27,422.7	35,837.0	44,964.0	56,248.0
Trade; Repair of Vehicles	2,701.0	3,282.3	4,060.0	5,222.0	6,085.0
Hotels and Restaurants	2,592.8	3,007.4	3,517.0	5,256.0	6,099.0
Transport and Storage	4,578.4	5,996.9	8,041.0	10,149.0	13,351.0
Information and Communication	831.1	988.9	1,590.0	1,572.0	2,441.0
Financial and Insurance activities	2,239.9	2,465.9	3,452.0	5,885.0	9,115.0

Real Estate, Professional, Administrative & Support Service activities	1,944.8	2,590.6	3,502.0	3,485.0	3,894.0
Public Administration & Defence; Social Security	3,023.6	3,896.8	4,952.0	5,305.0	5,843.0
Education	1,876.9	2,306.6	3,101.0	3,248.0	3,883.0
Health and Social Work	673.6	728.5	921.0	956.0	1,091.0
Community, Social & Personal Service Activities	1,721.5	2,158.7	2,701.0	3,886.0	4,445.0
FISIM (Financial Intermediation Services Indirectly Measured)***	1,511.6	1,457.7	2,317.0	2,919.0	4,354.0
GROSS DOMESTIC PRODUCT at_basic_prices	41,876.1	54,394.2	70,627.0	87,390.0	103,939.0
Net indirect Taxes	4,166.0	5,422.1	4,689.0	6,026.0	9,404.0
GROSS DOMESTIC PRODUCT in_purchasers'_value	46,042.1	59,816.3	75,315.0	93,416.0	113,343.0

Senzu (2015) Assisted primary data from Ghana Statistical Service from 2010 to 2014

Actual contribution of the major and sub sectors to GDP (Ghc Million) in Ghana

Table S2.

Data of highly contributive sectors to GDP growth of Ghana's economy (2012-2014) in GhcC millions

Highly contributing sectors to GDP growth	Actual Contribution in 2012 in Ghc(Million)	2012 Contribution in %	Actual Contribution in 2013 in Ghc(Million)	2013 Contribution in %	Actual Contribution in 2014 in Ghc(Million)	2014 contribution in %
Agriculture	16,668	10.70%	20,232	10.49%	23,278	10.07%
Service	35,837	23.01%	44,964	23.30%	56,248	24.33%
Industry	20,438	13.12%	25,113	13.01%	28,767	12.43%
Other minor sector combined	82,778	53.16%	102,650	53.20%	122,848	53.15%
GDP	155,721	*100%	192,959	*100%	231,141	*100%

Senzu (2015). Actual contribution of highly contributing sectors to GDP growth in Ghana

Table S3.

Data of highly contributive sectors that engaged high labour force from the economic market of Ghana (2012-2014)

Highly Contributing Sectors to GDP growth	Labour engaged from 2012 to 2014	Percentage of Labour engaged
Agriculture	59,893	0.73%
Services	2,708,796	33.12%
Industry	3,383,206	41.36%
Informal Sector	2,027,880	24.79%
Total	8,179,775	*100%

Senzu (2015). The labour force engaged by highly contributing sectors to GDP growth in Ghana

Table S4.

The GDP-growth status of Ghana's Economy from (2010-2014)

GDP growth rates

Year	GDP at current market prices	GDP at constant 2006 prices
2010	25.8	7.9
2011	29.9	14.0
2012	25.9	9.3
2013	24.0	7.3
2014	21.3	4.0

GSS (2015). GDP growth rates

With the assumption that, GDP growth, reflect the development status of an economy, *in ceteris paribus*, then Table S4 above in consensus with S1, S2 and S3 deduce that, there was a steady rise in "Service" in Ghana's economy from 2012 to 2014, with a percentage of 23.01% in 2012 to 24.33% in 2014 as an estimate of 1.32 percentage rise in contribution to GDP growth, while Industry and Agriculture were in a decline state. Industry as at 2012 was contributing 13.12% to GDP growth and by 2014 has declined to 12.43%, as an estimate of 0.69 percentage fall. Agriculture as at 2012 was contributing 10.70% and at the end of 2014 had declined to 10.07%, as an estimate of 0.63% percentage fall. In a comparative study to the state of GDP growth in the same period that is 2012 to 2014 from the Table S4, there was a percentage decline of 4.6 which

validate the argument of this paper, which state that, any sector of the economy performing very high in GDP contribution with no connection to the cultural-psyche of the economic market, could not affect it GDP growth positively. Which in this circumstance, the rise of the service sector in the detriment of the Agriculture sector performance and it related Industrial impact to the Ghana's economy, affected the sustainable macroeconomic growth. In respect to the data of Table S3, it establishes that, from 2012 to 2014; Service sector engaged about 33.12% of labour force, while the declining Agriculture and Industrial Sector engaged 0.73% and 41.36% of Labour force respectively within the same period. This equally agree to the foundational argument of this paper which state that, a highly contributing sector that fail to engage high volume of labour force in developing economy will fail to cause a sustainable growth in GDP. Service sector was in a steady rise, while Agricultural and Industrial sector were in a steady decline, yet industry employed about 8.24% labour force higher than the service sector. This confirms, the de-link of the service sector impact on developing economy and the danger it imposes by taking the center stage in the operations of the economic market in detriment of the Industrial and Agricultural Sector of developing economies. This therefore confirm in accordance to the spirit of this paper that, monetary policy instrument, which undermine relevant sectors, really linked to the sustainable GDP growth of an economy and observed to have high employment capacity to reduce unemployment frustration of the market, has largely contributed to the current fashion ability of Central Bank Policies in such economies and assumed by many professionals of becoming a ceremonial institution under the whims and caprices of politicians.

3. CONCLUSION

The paper in its conclusion predicate that, it is very relevant for Central Banks of the developing economy to have a quality understanding of the 'Cultural-Psyche' of the Economic market within it operational jurisdiction and appreciate it behavioural patterns in connections to the various sectors contribution to the GDP-growth of the economy, to guide in a scientific construction of it policy instruments, the only means to project the Central Banks as a respectable institutions in the business of Africa economic development devoid from a status assume to be a ceremonial institutions in the shadow of political manipulations of the fiscal space of the economic market.

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