Investment attraction, competition and growth; theoretical perspective in the context of Africa

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INVESTMENT ATTRACTION, COMPETITION AND GROWTH; **Theoretical Perspective in the Context of Africa**

1ST- Monograph

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ABSTRACT

Examination in both theoretical and empirical perspective deduce that, the major indicators of modern economy growth, depends on the extent of economic financialization, commonly defined as capital stock, industrialization and Technological Advancement. The focus of this paper is to theorize investment attraction mechanism for a national economy in a global competitive arena taking a posteriori perspective of Africa politico-economic climate.

1.0 INTRODUCTION

Over the years, the various popularly accepted mainstream economic schools, had battled in difficulty to clearly distinguish in it taxonomy records, the word "Capital" and "Investment" in it theoretical composition and analytics, as a result, both words are used interchangeably, as a required aggregate input toward output of production, without necessarily referring to monetary content of analysis. It is observed, in very exceptional cases and instances that an attempt made by few economists, to analyze the effects of the value of money on overall economic performance in both short and long-run, took cognizant of investment theory in nominal perspective.

One of such great example is the argument of Lugwig Von Mises (1953 [1912]), who was credited for using the marginal utility analysis to account for value of money, and also the first to recognize the significance of credit creation in the context of a decentralized, time-consuming production process. Which forms the axiom of Hayekian Triangle analysis of the relationship between Savings and Economic growth, the very tenet of Austrian Business Cycle theory. To achieve capital accumulation in a decentralized economy measured in nominal content, for the purpose of investment to production, requires a sacrifice in consumption-savings perversity, the essence of the Heinleinian principle (Heinlein, R., 1966). Which attracted Leijonhufvud (1968) to argue that, Saving-Investment perversity, in fact was central to Keynesian vision of the macro economy. Snowdon and Vane (2005) posit that, Austrian Economics interest in macroeconomic theorization within the framework of monetary effects towards economic growth, led to the interpretation of the word "Loanable funds" and it theoretical effects, which I quote "*They are,*

all the ways, that the investment community takes command of the unconsumed resources. Further taking command, has to include retaining command-in the case of the undistributed earnings of the business firm, in other to expand its own productivity capacity, and is to forego some of the market rate of return on its retained earnings, a rate that it could obtained through the financial sector."

This excluded consumer loans as income earned by individuals and spent on consumption. Their theory further exposed that, in the market economy, there are different financial instruments like Bank Deposits, Passbook account, bonds and equity shares. Garrison (2001) in his debate of Austrian economic school, on the perspective of capital-based macroeconomic framework, argued, the economy production possibilities frontier, is determined by the loanable funds market, in which the rate of interest reflects the savings preference of the market participants, while the corresponding consumption preferences are accommodated by the output of the final stage of production in the Hayekian Triangle. (Hayek, 1933) predicate, resources are being allocated among the stages of production on the basis of the cost of investment funds, such that the rate of return in the real sector, as reflected in the slope of the triangle's hypotenuse corresponds to the rate of return in the financial sector.

Then emerged, Harrod-Domar growth model, within the development economic literature. (Easterly, 1999, 2001a, and Chapter 11) posit, the model was to foster high rate of accumulation as a key to economic growth, in the absence of substantial inflows of foreign capital, a country must generate the necessary resources through high rate of domestic savings. And expect that, it will come with a cost of inequality-in-income because without adequate incentives, investment rates would remain insufficient to generate sustained growth. (Kuznets, 1955) hypothesized that a country to develop, inequality will increase before declining. Even though in the later years (Aghion et.al, 1999) debunked the preposition of Savings and Inequality of income in any growing economy in the face of empirical evidence. (Alesina & Rodrik, 1994; Persson & Tabellini, 1994) pose that, redistribution of income, by raising the tax burden on potential investors, reduces investment and consequently economic growth. Olson (2001), postulate, there are two key requirements for any society to grow economically, first establishment of secure and well-defined individual rights with respect to property and impartial enforcement of contracts, as capitalism is first and foremost a legal system and second, the 'absence of predation of any kind'.

Then Murphy et al's (1989b) reinvigorated version of the Big Push theory, which propound that, industrialization requires a large market in terms of domestic demand in other to make increasing-returns-technologies, profitable. Historically, theoreticians has focused in the development of investment theory and it effects towards economic growth, which the theoretical focus of this paper will put forward model required for "Investment-Attraction" in a modern economy, operating in a global competitive market, towards economic growth, especially in the perspective of developing economies

2.0 LABOUR WAGE CONTRACT & SAVINGS

Austrian Business Cycle theory is established on the axiom of Individual Savings in micro economy, contributing to capital accumulation, which augment macroeconomic production frontier. This uphold the assumption that, Wage negotiators aim for constancy of their real wage for effective budget planning towards savings. This concur to Fischer's (1977) model, that nominal wage increases should be set equal to expected inflation

$$\dot{P}_t^e = E\left(\dot{P}_t \middle| \Omega_{t-1}\right) \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 1.0$$

$$\dot{W}_t = \dot{P}_t^e \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 1.1$$

Then;

$$\dot{W}_t = E\left(\dot{P}_t \middle| \Omega_{t-1}\right) \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 1.2$$

$\dot{W}_t$ ----------Real Wage

$\dot{P}_t^e$----------Expected rate of Inflation

$\dot{P}_t$---------- Actual Inflation

E---------- Rational Expectation of Agents

This consolidate the empirical facts, such that in reality, there is the necessity of a corporate firm in a perfect market competition, to structure it real wage in correspondence to expected inflation and labour efforts. This is also in consonance to Solow (1979) postulation, that wage enters a

firm short-run production function in a labour-augmenting way, therefore a cost minimizing firm, favours real wage rigidity, which is demonstrated by the equation as,

$$Q = AF\,[e\,(w)\,L],\ e\,(w) > 0 \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 1.3$$

Q----------Firms Output

A----------Productivity Shift Factor

e---------- Real Wage

L---------- Labour Input

I therefore postulate, *"Savings is expected to rise to the optimum, to act as Investment- Capital Capacity to any Economy, when such economy approaches the theoretical positioning expressed by Fischer's model"* as

$$\dot{W}_t = \dot{P}_t^e \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 2.0$$

This theoretical positioning of an economy to trigger investment through Savings, in ceteris paribus, should be held in efficient Investment policy framework, which is expressed in an equation below as

$$\dot{S}_{t+1}^e = F\left[\left(\frac{\dot{W}_t}{\dot{P}_t^e}\right)\epsilon_p\right] \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 2.1$$

$\dot{S}_{t+1}^e$----------Expected Savings over-time

F----------Industrialization factor of an economy

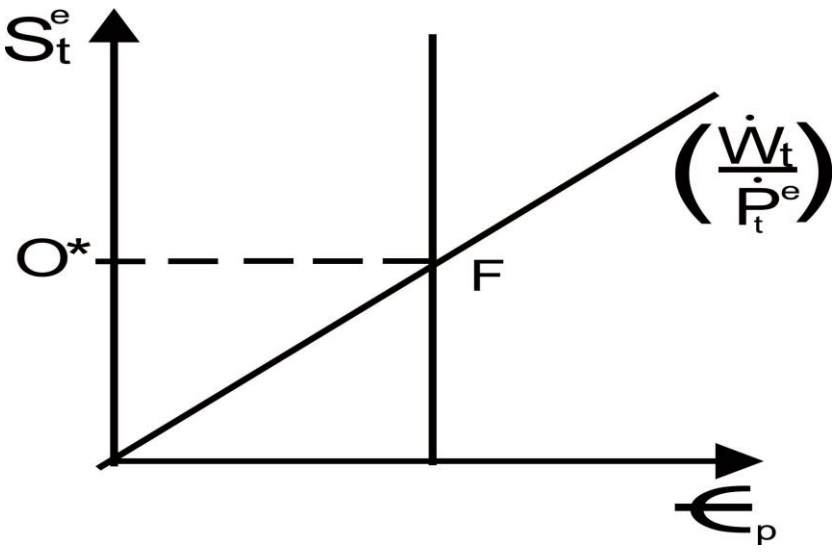
$\dot{W}_t$---------- Real Wage

$\dot{P}_t^e$----------Expected rate of Inflation

ϵ_P----------Efficient Investment Policy rate

It is assumed that, in such status of an economy, the issue of capital deepening capacity, in large extent will be addressed endogenously, towards industrialization optimal in developing economies. Expressed in a panel form as Figure X1.

Fig. X1



O* - Represent an Optimal level of industrialization of an economy, on Panel Fx. Model

Efficient in Investment Policy under this model means, Policies, which are '*Savings-Incentive driven'*. This invoke workers, as the acting agents of the economy to become Savings bias, responding perfectly to the consumption equation of Solow's (2000, 2002) model of growth as

$$Y = C + S \quad \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 2.3$$

Y---------- Aggregate Income of Worker

C---------- Consumption components of Wage

S---------- Savings Components of Wage

3.0 TRANSNATIONAL COROPRATE INVESTMENT IN PERFORMANCE EFFECTS

In every endogenous competitive market, corporate performance and profit is largely dependents on the following

i. Labour efforts, which corresponds to effective wage
ii. Technology and Innovations

The ultimate objective of every corporate firm is to perform, to attract larger market shares and satisfy aggregate demand. It is posteriori argued, the driving indicators of such efficient performance is largely dependents on Labour efforts, Technology and Innovation. Therefore will theoretically expose the patterns below,

3.1. **Labour Effort**

It is theoretical postulated by (Yallen, 1984; Katz, 1988), any firms that aims to maximize it profits (π) depending on it labour efforts, could be presented in the equation below as

$$\pi = AF\,[\,e(w)L - wL] \ldots\ldots\ldots\ldots\ldots\ldots 3.1$$

π----------Firms Profits
A----------Productivity Shift factor
C---------- Effort per worker
L---------- Labour inputs
w---------- Real Wage

This predicate, is in consensus with Marshall (1920), Akerlof & Yallen (1986), transnational corporate firms in the spirit of competition will pay higher wages to attract best workers. Secondly, to reduce the cost of labour turnover. Which also agree to Salop (1979) mode of labour market equilibrium. It is posteriori argued further, if the economy reaches the theoretical positioning of (Eq|2.1) above, such higher wages will have a great impact in the Savings

Capacity of the Economy. Analyzing the nature of international competition among firms (Fujimoto & Shiozawa, 2011[2012] Sect.b) asserts, international competition among firms of multi-national enterprise is a game with wage rates as handicaps. This exceptionally places, emphasis on the relevance of wages efficiency to both domestic and transnational firms towards performance in a perfect competitive market that characterized the global arena of trade, which is assumed to have theoretical effects on Savings, on an Investment-incentive-policy driven environment.

3.2 **Technology and Innovations**

Technology and Innovations, observed to have the capacity to attract Investment to an Economy by firms, whether national or transnational, was theoretically modeled by P. Romer(1990), He argued that, accumulation of knowledge as the outcome of a purposeful acts by Entrepreneurs seeking to maximize private profits; that is, technological progress is endogenized. Advancing the postulation of P. Romer, I therefore argue that, *"Any economy that places relevance in knowledge accumulation attract transnational firms into such economy, with the ultimate objective to tap into it skilled labour market, available at a liberal wage, to address the efficiency of delivering in a perfect competitive global market. This becomes a general situation when firms realize the cost efficiency in such a stylish labour out-sourcing than labour mobility programme".* The after-effects of such a postulation is, it causes quality transnational firms to relocate to such economy or Invest in Research & Development Centers as extension of their offices in such economy to augment their global competitive performance.

In P. Romer's (1986) model for endogenous growth economy, through production function, it was expressed in an equation as

$$Y_j = F\left(K_j, L_j, A\right) \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 3.2$$

He argued at the micro level, the output of any individual firm (j), depends on its own inputs of Capital (K_j), Labour (L_j) and the Economy wide state of knowledge (A)

In his formulation, growth of knowledge is assumed to depend on the growth of capital, lacking a well-defined mathematical relation. However in a posteriori argument in the context of developing economy, I postulate that *"Aggregate growth of Knowledge is directly proportional to the Growth of Capital in such economy"*

$$A_N \propto K_N \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 3.3$$

$$A_N = FK_{jN} \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 3.4$$

$$F = \left(\frac{A_N}{K_{jN}}\right) \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots 3.5$$

A_N---------- Economy wide state of Knowledge

K_{jN}---------- Capital Investment of Firms in such Economy

F---------- Industrialization factor of the Economy

In reference to [Eq. |2.1]

$$S^e_{t+1} = \mathrm{F}\left[\left(\frac{\dot{W}_t}{\dot{P}^e_t}\right)\epsilon_P\right] \ldots\ldots\ldots\ldots\ldots\ldots 2.1$$

Deriving the current equation as,

$$s^e_{t+1} = \frac{A_N}{K_{iN}}\left[\left(\frac{\dot{w}_t}{\dot{P}^e_t}\right)\epsilon_p\right] \ldots\ldots\ldots\ldots\ldots\ldots\ldots 3.6$$

Based on [Eq|3.6], we could therefore theoretically predicate that, high-Savings attraction of any developing economy to compliment the deepening of it capital stock, is highly dependents on the following

i. Economy wide state of Knowledge
ii. Efficiency of Investment Policy
iii. Savings of the Workers
iv. The ratio between real wage and Expected inflation
v. Capital Investment of firms in such Economy

This establishes the Economic danger caused to an endogenous economy, when a firms engages in 'Capital Flight'. This causes a distortion to the smooth functioning of the five leading indicators stated above, as the drivers to a national economy, in becoming a conduit to investment attraction and accumulation of capital, for Economic growth in a competitive global market

Therefore "Capital Flight" as an economic event, should be seen as the leading "enemy" to the sustenance and success of Investment attraction model of an economy and growth.

4.0 CONCLUSION

Since from the 18th Century, growth economic theorists, has formulated different models, using different indicative variables for an economy. But the most recent was Adelman (1958), who analyzed growth of an economy based on capital stock, natural resource, labour and stock of applied knowledge, then followed by

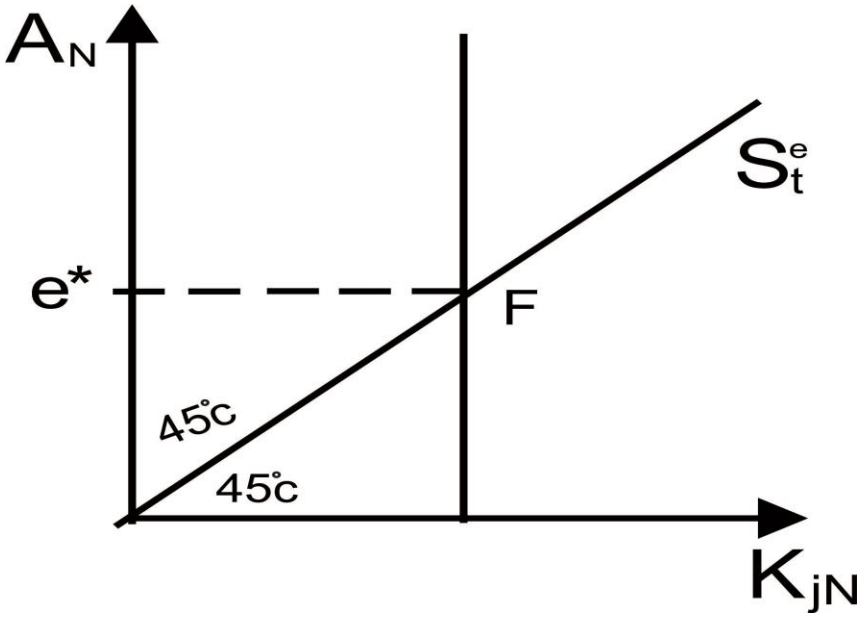
- Harrod-Domar model of Growth (Evsey Domar,1946, 1947 ; Roy Harrod, 1939, 1948)
- Solow- Swan Model of Growth (Solow, 1956, 1957 ; Swan, 1956)
- Romer-Lucas Endogenous models of growth (Paul Romer 1986, Robert Lucas, 1988)

The variance of my model from the above recognized models, is it focus on Investment attraction towards economic growth and theoretically represented by the equation

$$\Theta^* = F\left[\left(A_N, K_{jN}\right) + \left(S_{t+1}^{e}\right)\right] \ldots\ldots\ldots\ldots\ldots\ldots\ldots 3.7$$

And graphically represented below as Figure X2

Fig. X2



e^*---------- Economic growth

This conclude that, any developing economy (e^*) is expected to grow when it meet the following requirement

i. A high industrialization factor of the economy
ii. Economy wide state of knowledge
iii. Capital Investment of firms into such economy
iv. Expected Savings Over-time

The 2nd Monograph, will extensively define, how to achieve a Savings-Incentive cum Investment Policy credibility, with it required Institutional frameworks as a complimentary to the "Investment Attraction Theory". Finally establish a mathematical equation of how to measure correctly, "Efficient Investment Policy Rate" of an economy represented in my earlier model as $[\epsilon_p]$

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