Investment attraction, competition and growth; theoretical perspective of fragile economies.

Tweneboah Senzu, Emmanuel

Canadian University of Modern Technology, Sierra Leone, Frederic Bastiat Institute, Africa, West Africa Monetary Institute, Ghana

9 May 2018

INVESTMENT ATTRACTION, COMPETITION AND GROWTH; Theoretical Perspective of Fragile Economies.

Emmanuel Tweneboah Senzu

- Frederic Bastiat Institute Africa: *Research Center of Law, Economics and Finance. Bo, Sierra Leone.* *https://www.fbiresearchedu.org*
- ⌁**Canadian University of Modern Technology (*Silicon Valley*)***, Mile 91, Sierra Leone*
- West Africa Monetary Institute, *Accra, Ghana.*

Email: *Tsenzu@fbiresearchedu.org*

ABSTRACT

The fundamental inquiry of this paper is to advance the theory of Investment in relation to developing countries, and its effect on sustainable economic growth. The study thereby places emphasis on the theoretical perspective and empirical shreds of evidence of the Capital market structural patterns, which deduces that modern economic growth is highly dependent on the extent of economic financialization, commonly defined as capital stock of sovereign nations, industrialization and technological advancement. Therefore, the theorization of this paper, seek to establish the feasible mechanism for investment attraction into a fragile economy, operating within a global competitive arena, to increase the depth of its financial market, when there is an encumbrance on the effective Central Bank functioning towards economic growth trajectory.

Keywords: Investment Attraction, Investment Theory, Macroeconomics, Fiscal Policy, Economic growth, Industrialization

JEL Classification: E1, E2, E3, E6

1.0 INTRODUCTION

From the early (1920s) to the late (1970s), the various accepted mainstream economic schools, had battled to clearly distinguish the term "Capital" and "Investment" in it theoretical compositions. And such terms were mostly adopted terminology of economics inter-changeably to represent 'aggregate in-put' of production, and in most cases does allow the students to establish the meaning from the context, upon which the author's constructively applied those words, without necessarily referring to monetary content of analysis, which this very paper will adopt the monetary content definition to advance it theory. The paper acknowledges that, it was only in exceptional cases and instances, where attempts were made by few economists, to analyse the effects of the value of money on the overall economic performance as in short and long-run conjecture of investment theory, argued in nominal perspective, and presented as a subject study of Capital. One of such examples is the argument of Lugwig Von Mises (1953 [1912]), who is credited for using the marginal utility analysis to account for the 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 later formed the axiom of Hayekian Triangle analysis of the relationship between Savings and Economic growth, and became the foundational tenet of Austrian Business Cycle theory. Which postulate, 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, and became the fundamental basis of Heinleinian principle (Heinlein, R., 1966), which urged Leijonhufvud (1968) to argue that, Saving-Investment perversity, in fact was central to Keynesian vision of the macro economy. Snowdon and Vane (2005) posit, the 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 its corresponding effects, which, I quote herein as an abstract from their work, "*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 as well forego some of the market rate of return on its retained earnings, a rate that it could be obtained through the financial sector*". With regard to the postulation as quoted, it is an admitted fact that in any market economy, there are different financial instruments like Bank Deposits, Passbook account, Bonds and equity shares, which Garrison (2001) established his argument within the Austrian economic school, as a perspective of capital-based macroeconomic framework, which he stated, that any economy production possibilities frontier, is determined by the 'loanable funds' market, in which the rate of interest to the open market reflects the savings preference of the market participants, while the corresponding consumption preferences are accommodated by the output of the final stage of production, as outlined in the Hayekian Triangle.

(Hayek, 1933) predicate, resources are being allocated along the stages of production on the basis of the cost of investment funds, such that the rate of return in the real economic sector, as reflected in the slope of the triangle's hypotenuse corresponds to the rate of return in the financial sector (Capital market). Which is presumed to be the hypothetical foundation of Harrod-Domar growth theory, and advancedly developed in the economic literature of (Easterly, 1999, 2001a, and Chapter 11), the theoretical model deduces, high rate of capital accumulation is the key to economic growth, and concluded that in the absence of substantial inflows of foreign capital, a country must generate the necessary resources through high rate of domestic savings. And expected that, it will come with a cost of inequality-of-income because without adequate

[3]

incentives, investment rates would remain insufficient to generate sustained growth. (Kuznets, 1955) hypothesized that for a country to develop, it will initially have an increase in inequality before declining. Even though in the latter years (Aghion et al, 1999) debunked the preposition of Savings and Inequality of Income theory associated to growing economy on the face of empirical evidence. (Alesina & Rodrik, 1994; Persson & Tabellini, 1994) in complimentary to Kuznet's argument 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 the establishment of secured 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 (1989b) reinvigorated the version of 'Big Push' theory, which propound that, industrialization requires a large market in terms of domestic demand in other to make increasing-returns-on-technologies, profitable. Historically, theoreticians have focused on the development of investment theory and required legal institutionalization towards economic growth, which the dimensional study of this paper is to put forward a model required for "Investment-Attraction" to fragile economies, serving within a global competitive market, for their economic growth, especially, when it lacks efficient Central Bank to push such growth paradigm.

2.0 LABOUR WAGE CONTRACT & SAVINGS

Austrian Business Cycle theory is established on the axiom of Individual Savings within the micro economy, which does contribute to capital accumulation. This stylish postulation turns to regard the use of 'QE'-method of Central Banking, which is a higher stimulator of domestic

[4]

inflationary shock to the macro economy, to be the least tool to rely upon for the real economic expansion, as a means to minimize endogenous inflation of the market to a negligible state. Which is an avenue to allow accommodation and a full control over an exogenous inflation, with poses an equal threat in the management of fragile economies. The Austrian Business Cycle axiom thereby augments macroeconomic production frontier, and uphold to the assumption that, Wage negotiators aim for constancy of their real wage for effective budget planning towards savings. The extensive study of that concept, was presented in Fischer's (1977) model, that nominal wage increases should be set equal to expected inflation of the open market, presented as a model equation (1.0) below;

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

$$\dot{W}_t = \dot{P}_t^e \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \text{Eq. (1.1)}$$

Then;

$$\dot{W}_t = E\left(\dot{P}_t \middle| \Omega_{t-1}\right) \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots \text{Eq. (1.0)}$$

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

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

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

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

This consolidates the empirical facts, such that in reality, there is, the necessity of a corporate firm, in an assumed perfect market competition, to structure its real wage in correspondence to expected inflation and labour efforts. This is also in consonance to Solow (1979) postulation, that wage enters a firm's short-run production function in a labour-augmenting way. However, a cost minimizing firm, turns to favours real wage rigidity, which was demonstrated by the model equation (1.2) below;

$$Q = AF [e (w) L], e (w)> 0\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots.Eq. (1.2)$$

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

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

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

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

From a *posterior* observation of the settings of fragile economic systems, the possibility of Savings *cum* Investment to rise in a decentralized economy, when such an economy approaches the theoretical state, whereby, there is a high level of inflationary control, and the nominal wage of the labour market is set in equilibrium to expected inflation of the open market, present an extended version of Fischer's model" equation as submitted below as equation (1.3) and (1.4) respectively;

$$\dot{W}_t = \dot{P}_t^e \ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots\ldots.Eq. (1.3)$$

$$\frac{\dot{W}_t}{\dot{P}_t^e} = 1.0 \ \ldots\ldots\ldots\ldots\ldots\ldots..Eq. (1.4)$$

The presumption of Eq. (1.4) is to ascertain the possible fact that, in the correction of the market to attain a state, whereby the nominal wage of the labour market is perfectly in tune to the market inflation, present a scenario of the consumer wellbeing in terms of wealth attainment and management, and the desirability to uphold a behaviour of Savings-Investment compliant in *ceteris paribus*. And for such assumption to hold-up for any decentralized economy, the system requires an incentive Investment policy framework, and an enabling Institutional environment that takes into cognizant private-property protection, contract enforceability, devoid of any form of predation. Which is expressed as a model equation, and as an improvement of Fischer's (1977) model, to represent Eq. (2.0) below;

$$\dot{S}_t^e = F\left[\left(\frac{\dot{W}_t}{\dot{P}_t^e}\right)\epsilon_p\right]\dots\dots\dots\dots\dots\dots\dots Eq.\,(2.0)$$

$\dot{S}_t^e$------------- Savings performance as an expectation over-time

F----------------Institutionalization (Economic statutory Laws)

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

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

ϵ_P--------------- Investment Incentive Policy framework

It is assumed that, in such state of an economy, the issue of capital deepening capacity, in large extents is addressed endogenously, towards industrialization optimal, as a case for a developing economy. Expressed in a panel form shown as Figure (X1.), which is also a graphical presentation form of *(Eq.2)* above.

Fig. (X1)
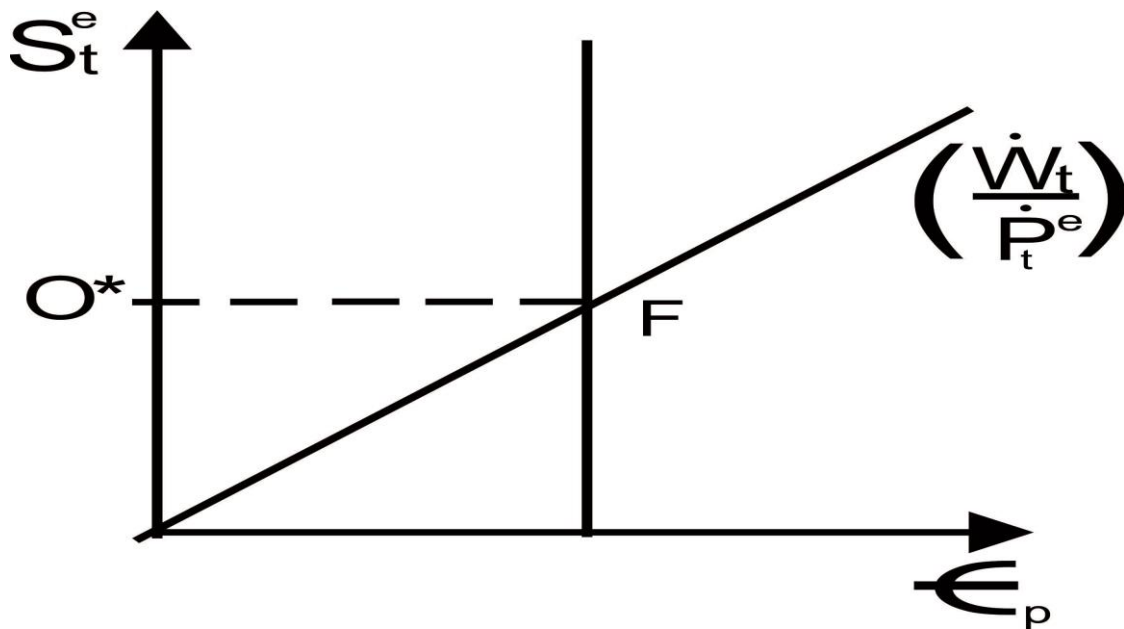
Source: Senzu,T. E.(2018)

It is a graph of Savings-Incentive Economy versus efficient Investment policy for economic industrialization and growth

[7]

[O*] as a symbol shown on the graph, represent an optimal level of industrialized economy, as depicted by Panel Fig. (X1)- Model. Which further expresses a required investment policy in a character of a 'Savings-Incentive drive', to invoke labourers, as the acting agents of the economy, to become Savings bias, and such proposition perfectly responds to the consumption equation of Solow's (2000, 2002) model of growth, represented by (Eq.2.1);

$$Y = C + S \dots\dots\dots\dots\dots\dots.Eq. (2.1)$$

Y--------------- Aggregate Income of Worker
C--------------- Consumption components of Wage
S--------------- Savings Components of Wage

On the basis of admissible fact, labour wage theory is incomplete without industrialization or 'production' of real economy. For that very essence, grant the author an enquiry to corporate investment effect to the domestic market, to compliment the microeconomics labour wage 'contract and savings' argument of this paper in favour of economic growth. Therefore, the next sub-topic does investigate corporate performance effects to the domestic market.

3.0 TRANSNATIONAL COROPRATE INVESTMENT PERFORMANCE EFFECTS

In every endogenous competitive market, corporate performance and profit is largely dependent 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, then attract larger market shares, and finally, satisfy aggregate demands. It is *posterior* argued, the indicative drivers of corporate efficient performance are largely dependents on Labour efforts, Technology and Innovation. Therefore, under this section of the paper, is to establish the relation between the labour effort, technology and innovation, while examining their relative effect on investment attraction to a decentralized economy, having a character of fragile settings.

3.1. **Labour Effort**

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

$$\pi = AF\left[\,e(w)L - wL\right]\ldots\ldots\ldots\ldots\ldots\ldots Eq.(3.0)$$

π---------------Firms Profits

A---------------Productivity Shift factor

e--------------- Effort per worker

L--------------- Labour inputs

w--------------- Real Wage

The model equation, is in consensus with Marshall (1920), Akerlof & Yallen (1986), on 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, thus agrees to Salop (1979) mode of labour market equilibrium. It is prior argued further, if an economy approaches the state with a high drive for Savings, when all it assumptive conditions are met as theoretically defined by (Eq|2.0) above, then any higher wages, will have a great impact on the Savings capacity of the Economy. Furthermore, corporate firms operate within a market of competition. Thereby

upholding to the introductory assumption of the paper as a 'perfect market competition' in a given environment, then a careful analysis into the nature of international competition among firms and their effect to domestic market is required. (Fujimoto & Shiozawa, 2011[2012] Sect.b) did assert that international competition among firms of multi-national enterprise is a game with wage rates as handicaps. And advanced the argument by stating that among countries with big wage rate differences, is of significance for corporate firms, as in both low and high wage countries. The bigger the discrepancies in wage rates of different countries, thus provide an opportunity for firms to overcome various disadvantages in technology, human skills and infrastructures. This postulation is in consensus to the fundamental precept of the paper on the reason that, countries with low labour wages, yet efficient skilled labour forces, and an enabling Institutional environment for corporate performance, will always become an attractive site for international competing firms. Because it resolve the challenge of high-input cost of production to help firms to remain competitive in the international open-market pricing. Which promote, as well as improve the domestic employment, and affect savings *cum* investment, which is theoretically argued to have a correspondent effect on economic growth, in *ceteris paribus*.

3.2 **Technology and Innovations**

Technology and Innovations, are observed to have the capacity to attract Investment to an Economy by firms, whether national or transnational. This was theoretically modelled by P. Romer (1990), when he argued that, accumulation of knowledge is the outcome of purposeful acts by entrepreneurs, seeking to maximize private profits, which its technological progress is endogenized. With such a situation, present a circumstance, whereby, firms realize the cost efficiency, and benefit of depending on the domestic available skilled labour, in their new sited country or location for operations. With the underlying presumption of a low wage countries. In

the advanced study of such phenomenon, P. Romer's (1986) presented a model for such an

endogenous growth economy, through production function. And expressed it in an equation *(3.1)*

as outlined below;

$$Y_j = F\left(K_{j,}L_j, A\right) \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots \ldots Eq. (3.1)$$

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).

If, Romer's Equation as in *Eq (3.1)* is examined in the context of 'Transnational firms', it easy to

infer that the willingness for a transnational firm to locate to a developing country as a site for

operations, with capital for investment into such a domestic economy, will always depend on the

accessibility to 'cost-effective' skilled labour for the new site, who will be capable to manage

effectively their expected market share knowledge of firm of a given jurisdiction, and further

advance it competitively in a manner, which is cost efficient to the firm strategy.

Therefore, the confluence of the equation of Romer (1986), that of (Yallen, 1984; Katz, 1988)

and the derived equation *(2)* of this paper as an advanced model of Fischer's equation (1977) are

together presented below as equation *(4)*;

$$S_t^e = \left[\left(\frac{Y}{K,L,\dot{A}}\right)\left(\frac{\dot{W}_t}{\dot{P}_t^e}\right)\epsilon_P\right] \ldots \ldots \ldots \ldots \ldots \ldots Eq.4.0$$

In the presentation of Equation *(4)*, deduce that, when a country of a fragile economy aspire to

position it economy for foreign investment through transnational firms, as a facilitation of

domestic production, all what is required, is an enabling Institutional environment for corporate

performance, and accessibility to 'cost-effective' skilled labour force, as the means to

successfully target, and attract such kind of foreign investment, within the conditional

requirement of individual firms targeted market share. In conclusion, a developing economy, having a dominated transnational firms within the domestic economy, which consume the country larger base of employable skills from the labour market, should endeavour to establish an equilibrium between the labour wage and the open market inflation, under an effective saving-investment policy drive, which is depicted by the equation *(4)*; such is the prerequisite condition to realize sustainable growth as in real economy production possibility frontier method. This method equally places caution on transnational firms that may engage in 'Capital flight', because such actions becomes anathema to the success of the method towards the growth of the fragile economy.

4.0 ECONOMIC GROWTH THEORY

Since the *18th Century*, growth economic theorists, has formulated different models, relying on 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)

Acknowledging all the existing mainstream propounded growth theories, since 1940's up to date, this paper makes an effort to contribute to the growth theory by submitting a modernized model, which uphold a theoretical purpose of 'Investment attraction' towards economic growth within a fragile economic settings, and present it in an equation form as labeled *Eq.(5)* below;

$$\text{e}^* = F\left[\left(A_N, K_{jN}\right) + (S_t^e)\right] \dots \dots \dots \dots \dots \dots \dots Eq.\,(5.0)$$

e^*...........Economic Growth

A_N.......... The Knowledge Economy of a [State]

K_{jN} ... ...The Capital market structure of a [State]

S_t^e ... ...The Saving-Investment Capacity of an Economy at any given time

F............ The Institutional enabling environment in terms of Economic statutory Laws

A graphical presentation of *(Eq.5)* as a panel is labeled below as Fig. (X2)

Fig. X2
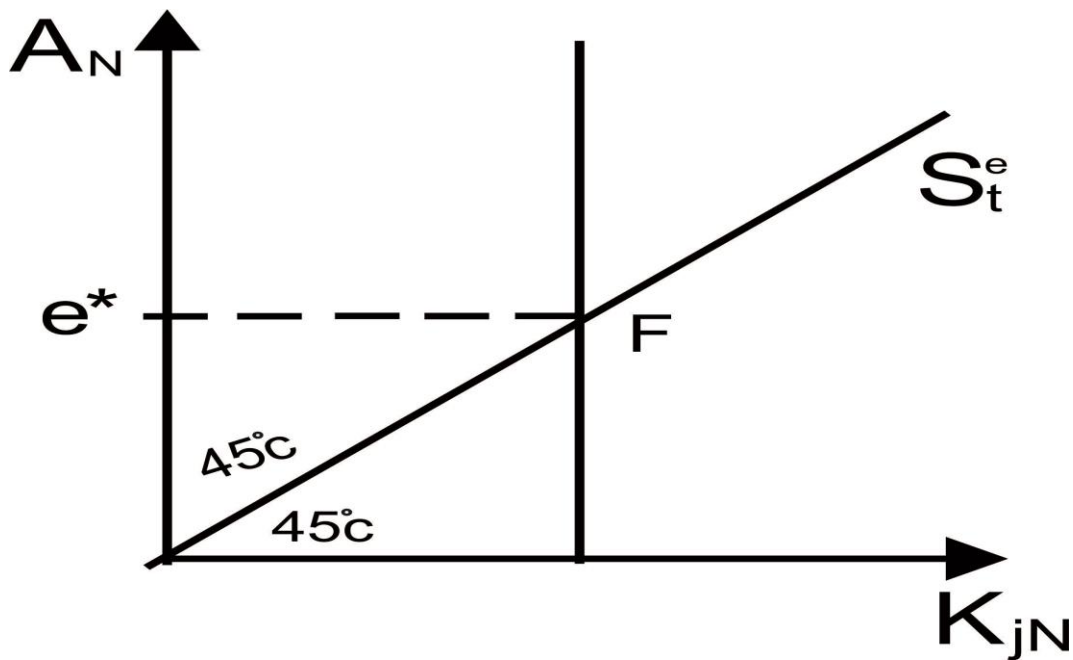
Source: Senzu, T.E. (2018)

It is a graph of economic-wide-state-of-knowledge versus the capital investment of firms from both exogenous and endogenous supply channel of the economy to promote savings-incentive-capital as a foundation to sustainable economic growth in the developing economy.

The graph depicts that whenever, there is a rise of a Knowledge Economy of fragile State (A_N),

which correspond to the growth of it National Capital stock(K_{jN}), it has an implication of a high

Industrialization and technological advancement of the same economy at the macro-level, which is further a direct implication of the activities of Transnational or National firms. When such state is attained by a developing economy, it naturally has within it a micro-level facets of Individual Savings-Investment drive with respect to time $and\ presented\ as$ (S_t^e). The success of such organized system of economic growth, does emerge out of enabling Institutional environment (F), which depends on Economic policies and Statutory Laws within the regiment of fiscal policies. On the panel, where the (e^*) is noted, is the exact hypothetical section of the market, where a fragile economy begins to experience growth, which is sustainable.

5.0 CONCLUSION

The study theoretically conclude, fragile [State] with shallow financial market due to varied form of constraint faced by their Central Bank, thereby affecting the quality of monetary policy instrument for the domestic market, in favour of economic financialization; as a means to empower domestic production capacity, for the growth of real economy, has an alternative approach in the rudiment of production possibility frontier theory, advanced by this paper. This theoretical proposition focus on the configuration of the domestic economy to be dependent on foreign investment attraction, to deepen the local financial market as a power house for industrialization and technological advancement. The success of the model is dependents on enabling institutional environment, on the basis of policies and economic statutory laws to attract transnational firms, as well as empower national firms, who will employ private capital as an investment to deepen the financial depth of the domestic market for the economic growth.

REFERENCES

1. Alesina, A. and Rodrik, D. (1994), 'Distributive Politics and Economic Growth'. *Quarterly Journal of Economics, May.*

2. Akerlof, G. A. and Yellen, J. L. (eds.) 1986), "Efficiency Wage Models of the Labour Market". *Cambridge: Cambridge University Press.*

3. Aghion, P, Caroli, E. and Garcia-Penalosa, C. (1999), "Inequality and Economic Growth: The Perspective of the New Growth Theories." *Journal of Economic Literature, December.*

4. Adelman, I. (1958), "Theories of Economic Growth and Development." *Stanford: Stanford University Press.*

5. Chow, G. C. (1975), "Analysis and control of Dynamic Economic Systems." *New York: John Wiley*

6. Domar, E. D. (1946), "Capital Expansion, Rate of Growth and Employment". *Econometrica, April.*

7. Domar, E. D. (1947), "Expansion and Employment". *America Economic Review, December.*

8. Easterly, W. (1999), "The Ghost of the Financing Gap: Testing the growth model used in international finance Institutions". *Journal of Development Economics, December*

9. Easterly, W. (2001a), "The elusive quest for growth: Economists' Adventures and Misadventures in tropics." *Cambridge, MA: MIT Press.*

10. Fischer. S. (1977), "Long-Term Contracts, rational expectations, and the optimal money, supply rule". *Journal of Political Economy, February.*

11. Fujimoto, T. and Y. Shiozawa (2012 [2011]), "Inter and Intra Company competition in the age of Global competition: A micro and macro interpretation of Ricardian Trade Theory". *Evolut. Inst. Econs. Rev. 8, 1-37. https://doi.org/10.14441/eier.8.1*

12. Garrison, R. W. (2001), "Time and Money: The macroeconomics of Capital Structure." *London; Routledge.*

13. Harrod, R., (1939), "An Essay in Dynamic Theory". *Economic Journal, March.*

14. Harrod, R., (1948), "Towards a Dynamic Economics." *Macmillan.*

15. Hayek. F. A (1933), "Monetary theory and Trade Cycle". *London: Lonathan Cape*.

16. Heinlein, R. (1966), "The moon is a harsh mistress." *New York: Putnam*.

17. Kartz, L. F. (1988), "Some recent developments in Labour economics and their implications for macroeconomics." *Journal of money, credit and Banking, August*.

18. Kuznets, S. (1955), "Economic Growth and Income inequality." *America Economic Review, March*.

19. Leijonhufvud, A. (1968), "On Keynesian Economics and the Economics of Keynes." *London: Oxford University Press*.

20. Lucas, R. E. Jr. (1988), "On the mechanics of Economic Development." *Journal of Monetary Economics, July*.

21. Marshall, A. (1920), "Principle of Economics." *London; Macmillan*.

22. Mises, L. V. (1953[1912]), "The theory of money and credit." *New Haven, CT: Yale University Press*.

23. Murphy, K. M., Shleifer, A. and Vishny, R. W. (1989b), "Income distribution, market size and industrialization." *Quarterly Journal of Economics, August*.

24. Olson, M. (2000), "Power and Prosperity: Outgrowing communist and capitalist dictatorship." *New York: Basic Books*.

25. Persson, T. and Tabellini, G. (1990), "Macroeconomic Policy, Credibility and Politics." *London: Harwood*.

26. Romer, P. M., (1986), "Increasing returns and long-run growth." *Journal of Political Economy, October*.

27. Romer, P. M., (1990), "Endogenous Technological Change." *Journal of Political Economy, October*

28. Salop, S. C. (1979), "A model of the Natural rate of unemployment." *America Economic Review, March*.

29. Snowdon, B. and Vane, R. H. (2005), "Modern macroeconomics, its origin, development and current state." *Chettenham, UK. Edward Elgar*.

30. Solow, R. M. (1956), "A contribution to the theory of Economic growth." *Quarterly Journal of Economics, February*.

31. Solow, R. M. (1957), "Technical Change and the Aggregate production function." *Review of Economics and Statistics, August.*

32. Solow, R. W. (1979), "Another possible source of wage stickiness."*Journal of Macroeconomics, Elsevier. Vol. 1(1), pages 79-82.*

33. Swan, T. W., (1956), "Economics Growth and Capital Accumulation." *Economic Records, November.*

34. Yallen, J. L. (1984), "Efficiency wage models of unemployment." *America Economic Review, May.*