Chapter Two

Economics: A Discipline in Need of a New Foundation

Economics: A Discipline In Need of a New Foundation

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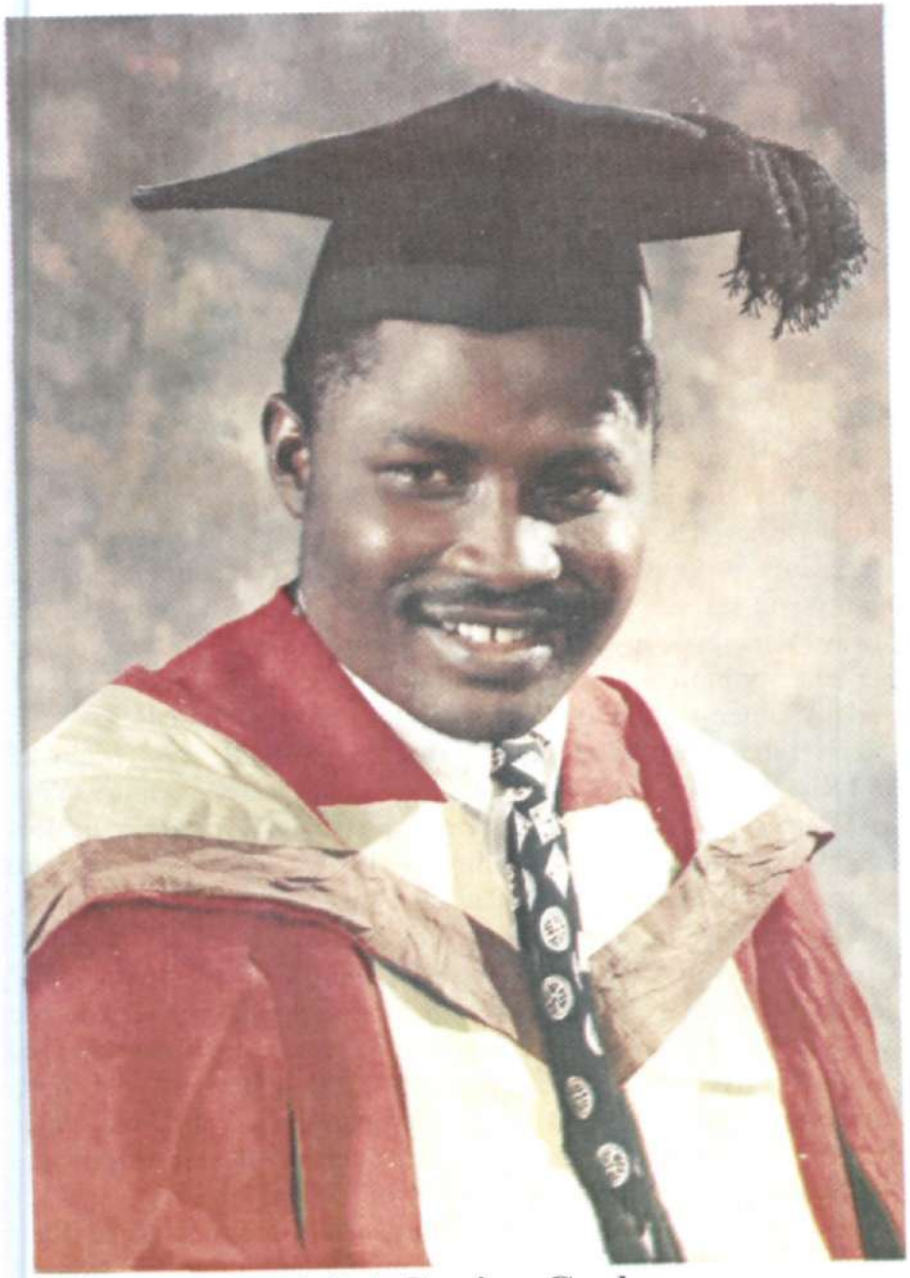

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Acknowledgements

I acknowledge with eternal gratitude, the grace of God Almighty for my life, for this lecture and for His uncountable blessings. I pray that he will bless me with the grace to submit totally to His will. Amen.

God has used many people to bless me and it is impossible to name them all. They include family, teachers, friends, students and pastors. God Almighty will bless every one of them for He knows their works.

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The Nigerian Economic Society (NES) has offered me several opportunities to serve, and to grow in service as Assistant Editor, Secretary and Editor of the Nigerian Journal of Economic and Social Studies (NJESS). My gratitude to the NES is unquantifiable. I am equally indebted to the African Economic Research Consortium (AERC) who provided funding support for my research in 1991-97, 2002 and 2006. In addition, the AERC facilitated my appointment as visiting scholar to the IMF in 1995 and 1997. The appointments were pivotal in my intellectual growth.

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Next to salvation and godliness is a blissful marriage. God has blessed me with the flesh of my flesh and the bone of my bones and united us as one. The mathematics of marriage is not addition but union (set theory). For it is in the union of two sets united by divine love and friendship and compacted by faith and hope that two become truly one. I am most grateful to God for the wife He gave me. My baby is beautiful inside and outside and both have attracted and locked-me into blissful contentment that I did not imagine possible. God who brought us together and has kept us together and lifted us to heights we never imagined possible deserves our eternal praise and worship. My prayer my love, is that we shall live in His light all the days of our lives. My baby, Kassey Garba, I love you in increasing measure and by His grace, we will be together forever. God bless you and make you fruitful in His vineyard all the days of our lives. Amen.

Mr. Vice-Chancellor, Deputy Vice-Chancellor (Administration), Deputy Vice-Chancellor (Academic), Dean of the Faculty of Social Sciences, Dean of the Postgraduate School, Deans of other Faculties and Directors, Head of Department of Economics, Heads of other Departments, Colleagues, Students, Gentlemen of the Press, Distinguished Ladies and Gentlemen, I thank you for your patience and kind attention.

Preamble

It is with gratitude to God Almighty and with humility that I stand before you, representing the Faculty of the Social Sciences, to present the first inaugural lecture on behalf of the Faculty. I thank the Dean of the Faculty for his graciousness and for encouraging me to give the 2013 Inaugural Lecture. I also thank my colleagues in the Faculty and, the Head and staff of the Department of Economics for their support and prayers.

Mr. Vice Chancellor Sir, I thank the Ahmadu Bello University for giving me this platform today to share my work in the field of economics as well as my deepest thoughts about the future of economics with academic colleagues, students and the general public. I deeply appreciate your presence and that of everyone here. My prayer is that the value of this lecture will reward your time and patient attention.

In thinking through several topics for this inaugural lecture, I sought a topic that would enable me reflect about my work in the field of economics but even more fundamentally, to appraise the state of economics as a field of study from its foundations. My primary goal in doing so is to contribute to the continuing debate about the future of economics and implicitly, the future of humanity. In thinking through and in writing, I sought divine grace for knowledge, for wisdom and for understanding, for I know that I have no knowledge, wisdom or understanding of my own. I also sought grace for boldness to write as truthfully as I can.

The topic "Economics: A Discipline in Need of a New Foundation" raises at least six fundamental questions that have troubled me at various stages of my career as a student, teacher and researcher of economics; and also as a policy maker. First, how much does economics describe, explain and predict and how successful has it been in describing, explaining and predicting? Second, should economics explain and predict as the natural sciences do, or should economics solve concrete puzzles and problems? Third, should the foundations of economics, be limited by the desire of economists to be scientists; or by the need for solving concrete puzzles and problems? Four, how sound is the foundation of economics for solving puzzles and problems? Five, how can economics better serve society, and what type of foundation does it *need*? Six, do economists *want* a new foundation for economics? The six questions are the focus of this lecture.

Before I address these questions, I provide some background on how I became an economist and how my practice of economics has evolved to this point. The background provides foundation for the Lecture and it is on the foundation that I shall anchor my reflections on the six fundamental questions. I have read Mark Blaug's *100 Great Economists before Keynes* (Blaug, 1986) and I found that the experiences of the economists influenced both their learning and their "doing economics". For example John Stuart Mills was significantly influenced by his father James Mills who taught him Greek at 3, Latin at 8 and political economy at 10. Because James had the support of his friend Jeremy Bentham in tutoring his son, John became influenced by Bentham's philosophy until John's experiences in the East India Company led him to doubt Bentham and to shift towards a synthesis of British and French traditions (Blaug, 1986). In deviating from Bentham's general happiness *principles*, he helped to build the foundations of orthodox economics by delineating its domain and methods that survive till today. It is also generally acknowledged that Harriet Taylor (whom he befriended and married after "waiting for about 21 years") influenced John's work particularly, *The Subjection of Women* in 1861. I also wish to acknowledge that my experiences have had profound influences on my learning and doing economics.

The Foundation

An Economist by Fate

I encountered economics in 1976 in my third year of secondary school. My first impression was influenced by the passionate and lively way in which my teacher (Mr. Jacques) taught economics and the way he grounded it in everyday reality. My teacher in the fourth year (Mr. Ogunsanya) had an interesting *call-and-response* method of teaching economics that excited us students. For instance, in explaining the behaviour of wages to changes in global demand, he would first lay a foundation of how an increase in global demand could *cause* prices of goods to rise, and how a rise in prices of goods could *cause* increases in wages. The call and response session would go thus:

Mr. Ogunsanya:	Higher what?
Students:	Higher wages.
Mr. Ogunsanya:	In the world what?
Students:	In the world market.

Through the call and response strategy, Mr. Ogunsanya impressed on our consciousness basic economic relations and analysis. In our exuberance however, we nicknamed him "Higher what?" Then and now upon reflection, I find that my early encounter of economics was filled with liveliness.

At the A-Levels, economics for me lost its liveliness and became increasingly abstract. It lacked for me the appeal of science (realism, observation, experimentation). In place of the appeal of science, A-Level economics had this annoying practice of depending on the catch all cliché "other things being equal" when it was clear to me and most of my colleagues that nothing was ever equal. The absence of liveliness of economics at the A-Levels was not the fault of my teachers for in Mr. Epson Gapsiso we were blessed with a teacher that was passionate, committed and effective, to the extent that when he had to leave for higher studies in the Department of Economics at Ahmadu Bello University, most of us wished that he would stay. Believe me, he gave us the very best. The problem was economics itself; particularly, its peculiar way of analysis which I later came to understand was the commitment by the leading 19th and 20th century economists to positivism as the favoured ontological approach. John Stuart Mills argued that the best way to build an economic science was through "thinking from hypothesis" (Mills, 1994). However, with *claims about reality* being the essence of positivism, it was inevitable that economic theory and economic reality will differ. Moreover, the theory-reality divide was not only inevitable, but the gap between theory and reality was likely to grow overtime as the incentive system rewards abstract theorizing far more than empirical, applied or concrete problem solving economics.[1]

By the end of my A-Levels, I had lost interest in economics as a field of study to pursue further. To express my dislike of economics, I gave out my economics text books for I had no desire to read economics in the university. Yet, it was economics that I studied in the university. And it was in economics that I excelled, graduating in 1984 as the best student in the department and the faculty with First Class Honours. My reading economics and the gift of performance that I was blessed with was in spite of my *wants* and *desires*. It was simply fate. It was what I was created to do.

I have had the privilege of interviewing two of my teachers and mentors Professors Sam Olofin and Professor Mike Kwanashie who were chair of my PhD and MSc Thesis Committees respectively.[2] One of the first questions I asked them was: how did you come to study economics? Both had the same answer. Fate! Their stories were different but the driving force was the same; fate.

Once I was registered to read economics in this great university founded on a sound vision and sound principles, I gradually adjusted to my reality. My teachers were very helpful in the adjustment process. Professor Bhambri inspired me by the way he taught microeconomics with confidence and simplicity. He would come to class with only his chalk and duster and take us through a journey that left me richer every time. Then there was Agogo Mawuli who taught Introduction to Mathematics for Economics and S.N.A. Mensah who taught me Mathematical Economics (Part II and Part III) and Project Evaluation (Part III). Both of them taught with great commitment that was stimulating and added considerable value to my acquisition of intellectual skills. Ode Ojowu had an interesting way of teaching that challenged me to see beyond the obvious; to interrogate the philosophical basis of economics. Soft spoken but his words soft and few as they were, were pregnant with meaning that challenged me.

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[1] The Nobel Prize in Economic Science has recognized mainly econometrics and theoretical work in the orthodox traditions. As at 2012, of the 71 individuals honoured, 26 were affiliated to University of Chicago (Wikepedia, 2013).

[2] Garba (2006) documents the interview with Professor Olofin.

Dr. James Attah kindly accepted me in his Econometrics class in part III (the final year of undergraduate study). I was supposed to have taken classes in Theory of Statistics in part II if I planned to take econometrics. I was not aware of that and registered instead for Elements of Statistics which was required for Applied Statistics. I chose to register for Econometrics to avoid writing a project. Dr Attah counseled me that it would be challenging to take Econometrics without having taken Theory of Statistics. He registered me after I assured him that I would make up, on my own, the deficiencies; having considered that I had taken Mathematical Economics in part II and was also taking it in part III. I am grateful that he registered me. He gave me and my course mates a solid foundation in econometrics both by the content of the course and the way he taught it. He gave econometrics life with his style of *doing econometrics by logical narratives*. Often, we encountered at appropriate junctures recall x and given y then, z. The stories between x and y and z made x, y, z to be not mere abstract symbols but *symbols of meaning and of meaningful relations*. When I later got to teach econometrics, I tried to teach using his style.

Professor Mack-Jones an African-American came to the Department of Economics in 1983 and taught microeconomics in a way that was remarkable giving great emphasis to developing our analytical abilities. After one of our tests, she sent for me. When I saw her she reviewed my answers pointing out that my analytical skills were good and discussed with me on how to improve on it. Her actions greatly encouraged me.

During the undergraduate years, my concerns about economics receded to my sub-conscious. I found the electives (mathematical economics and econometrics) and, microeconomics (which was also mathematical) the most exciting. Being in the midst of friends that read political science (Chris), archaeology (Lawrence), history (Joshua), sociology (Nathan) and geography (Solomon) and the intense debates we had filled for me what economics lacked: realism, diversity of perspectives and arguments. I also learnt greatly from the vibrancy of the critical intellectual culture in the then Faculty of Arts and Social Sciences (FASS). The seminars, conferences and workshops that were frequently organized saw so much intellectual fireworks that helped students to have a critical and broad intellectual horizon. Between the time I organized saw so much intellectual fireworks that helped students to have a critical and broad intellectual horizon. Between the time I graduated and the time I returned as a graduate assistant, much had changed.[3] Also, between undergraduate and post-graduate school, much had also changed.

The environment of graduate school lacked the vibrancy of the undergraduate environment. For one, the boundaries that disciplines set for themselves; seem more rigid in graduate school than in the undergraduate programmes. Because of this narrowness, my skepticism about economics returned more forcefully. By the time I went for the PhD programme in Ibadan, which was famed for its strong commitment to orthodox theory, my skepticism expanded to questioning the role of mathematics in economics, the practice of econometrics, the impotence of econometrics in resolving economic disputations and the weaknesses of the core concepts of economics. My skepticism was deepened by my introduction to the History of Economics Literature by a senior colleague in the department (Mr. D. D. Bolaji) who introduced me to books such as *Knowledge and Ignorance* by Terence W. Hutchison a famed empiricist and critique of orthodox economics.

Indeed, my skepticism delayed my choice of a problem for my PhD thesis. Eventually I had to give in to conducting an applied econometrics study of external shocks and policy responses despite my initial reservations. To motivate myself, I reasoned with myself that once I had successfully completed the thesis and graduated, I will be free from the burden of supervised study. Then I will be free to think, research and write my convictions. So doing an econometrics oriented study was to me a price I had to pay to be free to think, write and publish as my research and reflection led me. In March 1994, I won my freedom.

Under the guidance of my supervisor (Professor Sam Olofin) I developed, estimated and simulated a small open economy econometric model of the Nigerian economy which I then used to measure and decompose the effects of external shocks and policy responses on selected macroeconomic aggregates of the Nigerian

[3] The FASS was losing its vibrancy with the exit of leading scholars and the sapping of the intellectual environment as structural adjustment policies began taking their toll on real income, living standards and learning environment.

the Nigerian policy process and its links to external shocks and macroeconomic variables. Second, it employed econometric methods in a more rigorous way to achieve the objectives of the research. Third, it added value in terms of a much richer analysis of policy using the methods of simulation experiments. The improvements also improved the main conclusion of the M.Sc. Thesis.

In my M.Sc. thesis, under the guidance of my supervisor (Professor Mike Kwanashie) I reflected on the effectiveness of fiscal and monetary policy to generate sustained economic growth in Nigeria (Garba, 1988). The primary concerns were that (1) the fiscal anchor oil revenue was volatile hence (2) all key policy instruments fiscal, monetary and trade exhibit similar patterns of volatility. Consequently, the monetary and fiscal as designed and implemented lack the capacity to generate and sustain economic growth. The implications of the econometric results which supported the thesis were that Nigeria needed to (1) significantly minimize the dependence on oil revenue and (2) alter the structure of investments to build sound infrastructure if growth was to be self-sustaining.

The main conclusion of the PhD thesis was that generalizations about the impact of government policies or external shocks are misleading because the impact of policy and external shock were non-uniform across macroeconomic variables. Therefore, the effectiveness of government policies did not depend on generalizations, but on a careful analysis of policies given due attention to the policy environment. The recommendations were:

> that the framework for Nigerian government policy should have at least two attributes. First, it is broad enough to deal with the multiple direct and feedback effects of government policies. Second, it should have the capacity to deal explicitly with the problems which structural and policy dependence poses to a small open mixed economy. Finally, the study recommends that government policies must aim at reducing the degree, extent and character of policy and structural dependence to reduce the dis-stabilizing impacts of external shocks on the Nigerian economy. (Garba, 1994)

Learning and Doing Economics

Learning Economics

I started teaching economics at a secondary school (during the National Youth Service Corp programme from 1984-85). I taught briefly at A' Level institutions (1985-86) before joining the Ahmadu Bello University in 1986 as a Graduate Assistant. My post-graduate training began in January 1987 shortly after joining the University. As a Graduate Assistant, I enrolled in the MSc. programme in 1987 graduating in 1988 after which I proceeded to Ibadan in October of the same year for the PhD programme; I graduated in March 1994. My postgraduate training was unique because of the contrasting traditions in Zaria and Ibadan. The postgraduate training in Zaria was rooted in the critical intellectual traditions of FASS while the Ibadan programme had deep and extensive roots in the orthodox traditions of economics.[4] From Zaria I imbibed the critical tradition and from Ibadan I imbibed a deeper appreciation of orthodox economics. The critical tradition encouraged me to seek (1) alternative perspectives of economics; (2) make up for my deficiencies in History of Economics and (3) develop an interest in the philosophy of economics. The orthodox tradition in Ibadan encouraged me to seek a deeper understanding of the organic structure of orthodox economics as necessary for any meaningful critical work. The two contrasting influences from Zaria and Ibadan shaped my learning as well as my doing economics.

Although I took to Ibadan a skeptical attitude to orthodox theory, I nevertheless sought to understand it clearly and deeply; indeed, one of my goals in Ibadan was to deepen my understanding of orthodox economics. The diverse set of topics in the core of economics (microeconomics and macroeconomics) and the applications of the core (development economics, international trade, public finance, monetary economics and so on) posed a challenge to me. I sought a simple analytical framework that would

[4] Although Professor Bade Onimode in his microeconomic theory class and in his research and publications was critical of orthodox theory, he taught the course in the best orthodox tradition. Similarly, Professor Sam Olofin espoused utilitarian views, yet he taught macroeconomics in the best orthodox traditions (Garba, 2005).

help me navigate through economics clearly and simply. At the time in the late 1980s, the crisis in macroeconomics was still current and one of our compulsory readings in Prof Olofin's macroeconomics class was *Crisis in Economic Theory* edited by David Bell and Irving Kristol (Bell & Kristol, 1981). It had contributions from leading economists: Kenneth J. Arrow, Daniel Bell, Paul Davidson, Peter F. Drucker, Edward J. Nell, Harvey Leibenstein, James W. Dean, Israel M. Kirzner, Allan H. Meltzer, Irving Kristols, Mark H. Willes and Frank Hahn. The general concern was a failure of theory to provide credible or reliable guide for economic policy. The main criticism against Keynesian economics was the rational expectation critique that Keynesian economics lacked micro-foundations and that its policy recommendations were as a result, flawed. It occurred to me then that if the crisis in macroeconomics was that it lacked micro-foundations or to be more specific that it was not consistent with neoclassical economics, then microeconomics was foundational to macroeconomics. Therefore, understanding the structure of economics required a basic understanding of microeconomics.

After careful reflections, I developed a flow chart to help my understanding of microeconomics. I have provided in Figure 1 below a simplified version, which nevertheless shows the core elements and relations of orthodox economics. At the base of the chart were the related concepts of scarcity and choice. And on the base are built *three hierarchies of theory*: theory of economic actors (consumer theory and producer theory); theory of economic markets (partial equilibrium and general equilibrium theories) and theory of welfare. The first two make up positive economics and the latter, normative economics.

At this point in my learning economics, I did not interrogate the concepts of scarcity and choice or, the concept of economic man or *homo economicus*. I simply accepted that scarcity and choice were the foundations of orthodox economics and that it was on them that positive and normative economics were built. Also, that in the three hierarchies of theories, equilibrium analysis was the norm.

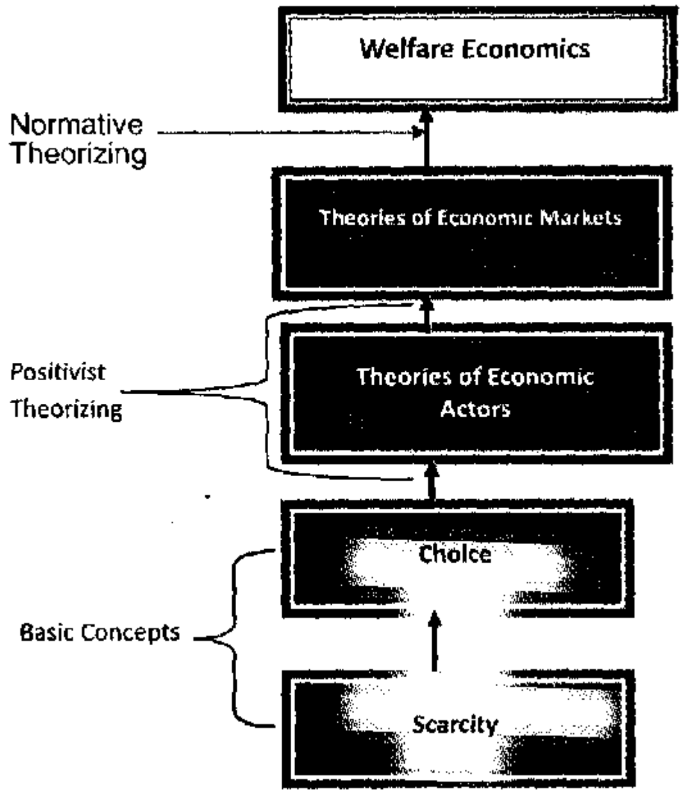

Figure 1: *Basic Insight into Orthodox Economics*

The theories of economic actors institutionalized *goal equilibrium analysis* by formalizing and analyzing constrained optimization models of utility maximizing consumers and, constrained optimization models of profit maximizing producers. The theories of economic markets institutionalized *partial equilibrium* (equilibrium analysis of an isolated market) and *general equilibrium* (analysis of interdependent markets in competitive equilibrium). The less scientific or "normative" part of economics addresses analysis of alternative states of the economies (alternative competitive equilibriums) in terms of their welfare implications. Welfare economics is built on the positive structure and like the positive structure; it is the product of deductive reasoning. Its "normativeness" quality is given by the values that are explicit in the evaluation of alternative states of the competitive equilibrium.

The analytical framework sketched in Figure 1 implies that: (1) the truth of the market model depends on the truth of choice theory and the correctness of the logical structure linking choice theory to market model and (2) the truth of choice theory depends on the validity of the conceptual foundations and the correctness of the logical reasoning linking conceptual foundation to choice theory. Therefore, the validity of market model depends on the validity of the conceptual foundations, the correctness of the logical reasoning linking conceptual foundation to choice theory and the correctness of the logical reasoning linking choice theory to the market model.

The framework led me to recognize the importance of concepts in economic theorizing and in evaluations of economic theories. As a result, I had strong incentives to develop further an interest in the history of economic thought that was kindled in Zaria by Mr. Bolaji through his friendship which allowed me to listen in on his nostalgic discussions with Mr. Z. T. Abdallah on history of economic thought that they were taught. The intellectual engagements encouraged me to read books on history of economic thought and in the process to discover books on philosophy and methodology of economics.[5]

Figure 1 also embodies three essential features of the theorizing principles of orthodox economics. The first is the preferred ontological approach (positivism) that gives primacy to the making of claims about economic phenomena.[6] The second feature is the method of analyzing aggregate behaviour through analysis of atomistic behaviour. In both consumer theory and producer theory which are the flagships of orthodox theory, the method involves (1) a formalization and analysis of the choice problem of the atomistic agent (as consumer or producer) and (2) the employment of principles of additivity to transit from individual to market analysis. The third attribute influenced by physics, is the choice of

[5]Two of the books that I was very interested in were T. W. Hutchison's *Knowledge and Ignorance in Economics* (Hutchison, 1977)and Janos Kornai's *Anti-Equilibrium* (Kornai, 1971)

[6] It is this ontological approach that empowers economists to invent abstract particulars such as homo economicus and perfect market and to use them as analytical pillars even when it was known that they do not exist. These abstract particulars are them employed to make claims about real economic actors, real markets and real economies.

equilibrium as the end point of analysis. Thus, at the first level of analysis that is the atomistic level, the focus is *goal equilibrium* while at the second level, the focus is *market equilibrium*. The fourth feature is implicit in choice theory: the idea that atomistic agents seek the most preferred option or the best available option. All four essential features of orthodox economics are still subject of much disagreement in economics as they were in my graduate days.

My concern was not limited to the potential weaknesses of orthodox economics. I was concerned also with the attempts to unify microeconomics and macroeconomics. I was convinced that the methodological commitment and the social philosophy of Keynes's *General Theory of Employment, Money and Interest* differed sufficiently from those of orthodox economics to make a synthesis difficult to achieve. Whereas orthodoxy was deeply wedded to positivism, Keynes believed that "economics was a science of thinking in terms of models joined to the art of choosing models which are relevant to the contemporary world." He also believed that economics was unlike the natural sciences because economic phenomena and agents were not homogeneous. Thus, the successful economist must have a gift for using "vigilant observation" to choose good models. Keynes did employ the art of "vigilant observation" to formulate premises he used to develop his general theory deductively. A second area of difference was that the orthodox economists and Keynes were committed to different social philosophy. Contrary to orthodox positions, Keynes supported more equity in income distribution and, the euthanasia of the rentier capitalist through socialization of capital.

The IS-LM "synthesis" which evolved out of the paper by J. R. Hicks (Hicks, 1937) was not designed to be a synthesis of microeconomics and macroeconomics. In the paper Hicks made it clear that his purpose was to develop a typical "classical model" in a form similar to Mr. Keynes' to use in a comparative analysis that would reveal Keynes' innovations and help the discovery of the real issues in dispute. Hicks admitted that the model he developed was "a skeleton apparatus . . . a terribly rough and ready sort of affair" (Hicks, 1937). Yet, the "skeleton apparatus" became the standard pedagogy for macroeconomic teaching for almost half a century. The framework was employed in teaching about the workings of the economy in the short-run and for evaluating alternative policy options. Apart from the omission of many innovations of Keynes, the IS-LM synthesis overshadowed social philosophy and a set of paradoxes that Keynes sought to bring to the center of economic discourse. In my judgment, the overlooking of the social philosophy chapter of the *General Theory* and the paradoxes Keynes revealed, has limited the ability of national policy makers to learn important lessons from economic history. It is not therefore surprising that the world has been reliving historical mistakes at increasing global costs.[7]

Doing Economics

Economics has been a part of my life since 1976. Before encountering economics, I encountered many other things and had many other experiences. Therefore, while economics has influenced my life since 1976, many other things have influenced my learning and my doing economics. Indeed as I reflect on my career since 1986, I find that my learning and doing economics has evolved through three phases of the evolution of my life. I have chosen for convenience to classify the phases as the secular phase, the transition phase and the spiritual phase.

Each phase has been shaped, I believe, by how my answers to two key questions have changed. The questions are first, *what is the meaning of life*? Second, *what is the purpose of life*? These two questions are mere summaries of the questions I had been asking since my childhood about which I could not get satisfactory answers: Why am I here? Where will I end? How will I end? When did the world begin? What was there before it started? Will it end? If so when? How will it end? What will take its place? What is the physical beginning and end of the "world" (or universe)? Can there really be a point of physical ending? The more I reflected in my young mind, the more confused I got and because my thoughts were introverted, I could not find answers from where I sought them (my limited mind and even more limited experience).

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[7] Keynes presented the social philosophy that he hoped *The General Theory* will lead to in Chapter 24 the concluding chapter. First, he faulted the failures of the capitalist society to "provide for full employment and its arbitrary and inequitable distribution of wealth and income". Two of his innovations, the *marginal propensity to consume* and the *multiplier* indicated that demand not investment was the driving force of economic growth. In addition, the Keynesian savings function unlike the classical model indicated that income was the key determinant of savings and that a higher savings rate did not necessarily stimulate growth. The implication of the two innovations and the savings function being that the orthodox argument that income inequality was necessary for growth had no foundation. The social implication was that income inequality and arbitrary distribution of wealth had no scientific or moral justification. Keynes also argued that rentier capitalism was bad for growth. Therefore, government should socialize capital to eliminate rent on capital and, the rentier capitalist. Unfortunately, as orthodox economics thrive, so has the rentier capitalist.

I will briefly review each phase and how my doing economics and my view of economics evolved. Before that, I believe that I need to clarify what I mean by secular phase, transition phase and spiritual phase. The etymology of the word secular, which is from the Latin word *saecularis* meaning "worldly" or "temporal", asserts the independence or separation of the "temporal" from religious influences, values and institutions.[8] Applied to learning and doing economics; my view was that *economic phenomena are temporal and are thus, best understood using the human mind and senses and humanly developed ontological approaches and methodologies.* This was my dominant position all through the period I trained to do economics. However, my lingering doubts about economics deepened when the World Bank and the IMF under the control of the leading economies began imposing the theoretically unsound structural adjustment programme on Sub-Saharan countries with disastrous consequences. Globally, as liberalization gathered momentum and spread rapidly after the collapse of the Soviet Union, I began to view economic thought as a tool of strategic games between asymmetrically advantaged countries in their strategic plans to secure strategic advantages globally, particularly in weaker countries without any concern for the welfare of the citizens of the "worsted" countries After much debate with my research collaborator (Kassey Garba) over several years, I began to extend my focus to all points of disadvantages: class, group, gender, national and regional.

As I studied the concrete economic games and their asymmetrical payoffs along class, gender and nation, and regional lines, I experienced and resisted repeatedly, the institutionalized structures that the promoters of international research networks developed to control and limit the depth and scope of conceptual work by African economists. With the blend of Zaria and Ibadan, I freed myself from *conceptual and domain bondage* and interrogated more intensely and more deeply the foundations of orthodox economics [Garba, 1999). My interrogations, readings and reflections in an environment increasingly opened to transcendental experiences, gradually altered my view about the separation of economics from transcendental systems of meanings. My final intellectual liberation led me eventually to where I am in learning and doing economics.

[8]George Jacob Holyoake, reported as the first to use the term secularism in 1851 sought a social order separate from religion on the grounds that "there is light and guidance in secular truth, whose conditions and sanctions exists independently, and acts forever" (quoted from www.wikipedia.org/wiki/Secularism)

Figure 2 shows the effects of the *post-graduation changes* on the framework I designed from Ibadan during the *transition phase* and during the *spiritual phase*. In the transition phase, I reflected on and wrote more about philosophy and methodology of economics giving more attention to key economic concepts: economic man (*homo economicus*), scarcity, choice, preferences, consumer, producer, production, consumption, optimization and so on. Thus in Figure 2, the concept of *homo economicus* and perfect competition became parts of the foundation.

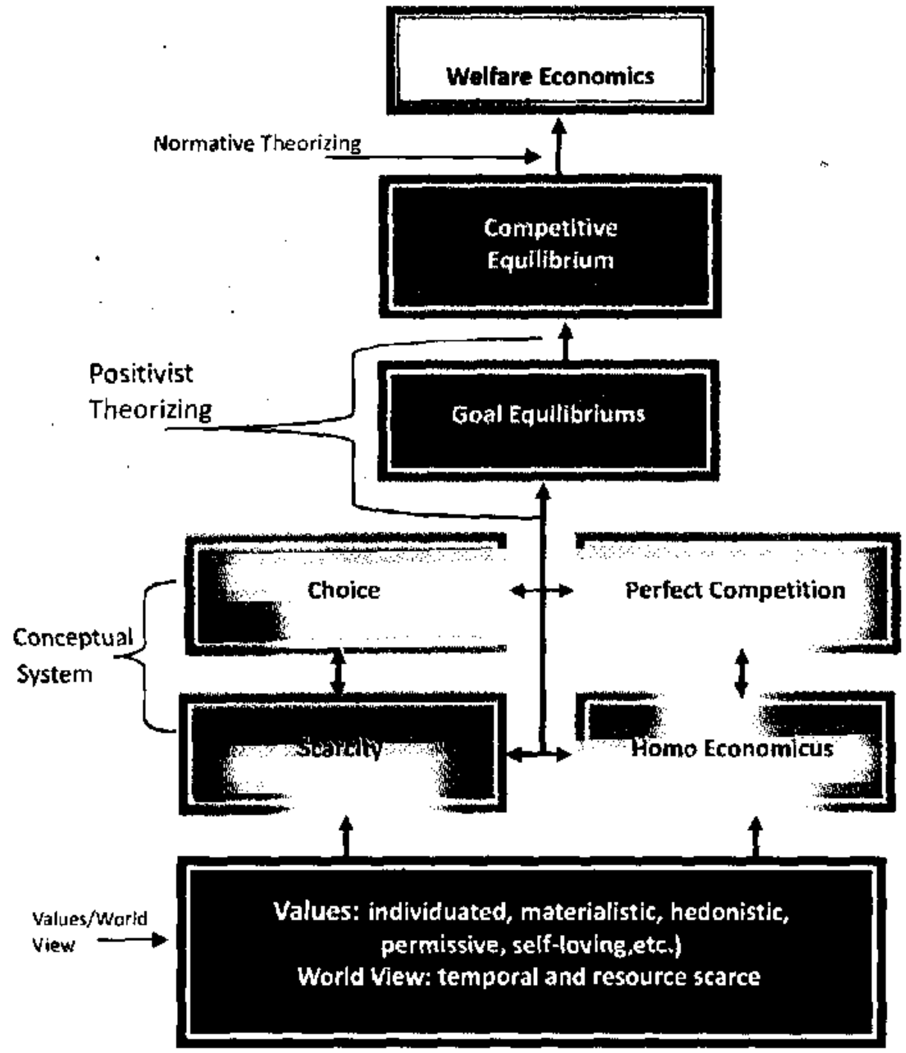

Figure 2: *Deeper Insight into Orthodox Economics*

In the spiritual phase, it became clear to me after reading John Stuart Mills (1836), William Stanley Jevons (1877), Lionel Robbins (1935), excerpts of Aristotle's *Nicomachean Ethics*, Earle (1992) and Russell (1972) that beneath the elegant superstructure of economics lay vices: materialism, hedonism, self-love and permissive values. This realization influenced my transitions particularly, in perspective. I began to see economics as more than a cognitive enterprise: but more increasingly as a cognitive enterprise that promotes (1) *cognitive control* over the minds of the economists and non-economists and (2) the interests of capitalists and in recent decades, the interests of the least productive capitalists: the rentier capitalist. I also took a more careful notice of Keynes warnings about (1) how easily one could be a slave to defunct ideas; (2) the dangers of hostility to change and (3) the dangers of applying expired ideas to new problems.

I will return to Figure 2 later to develop my core argument that *economics needs a new foundation*. Before that I will provide an overview of my learning and doing economics as my knowledge and understanding developed.

Phase 1: The Secular Phase

When I began my university career in 1986, I believed I had a good answer to the question *what is the meaning of life*. In my mind and in the way I lived, I was convinced that it was the *value of my work* to family, to students, to the society and to the nation that made my life meaningful. I did not believe in the accumulation of material wealth or in esteem (position and power) seeking as the primary goals of a meaningful life. I therefore, neither desired nor sought to be materially rich beyond the threshold to meet my material needs and social responsibilities. Neither did I seek positions and power to gain esteem or wealth.

My primary goals were to be a sound teacher of economics, a creative reader, thinker, researcher and writer and a useful member of my family and society. My notion of creativity was to think outside the box of "*ceteris paribus*" that is, the box of "other things being equal" to find better ways of understanding how economies work globally and nationally. I was also motivated by my teachers, the enthusiasm of my students and many of life's lessons I picked up from books, documentaries and relationships.

As a teacher, my goals were to teach the courses I was assigned (mainly mathematics for economics and macro-economic theory in the early years) as best as I could and to encourage students to understand basic relations in economics and the basic mathematical tools for analyzing the economic relations. In addition, I was particular about students acquiring capacity to apply economic tools to the analysis of concrete economic phenomena so that wherever they worked after graduation, they would be competent and add substantive value to the society.

My research focus was influenced by my mentors, by research opportunities and by interests in development oriented policies. Between 1987 and 1992, two of my mentors were most influential. First, in 1987/88, Professor Ojowu gave Musa Rabiu (a colleague) and I the opportunity to work with him on a study on small scale food processors funded by the Social Science Council of Nigeria (now Social Science Academy of Nigeria). The opportunity enabled me to acquire skills for framing research questions, questionnaire design, data collection, processing and analysis, report writing and presentation.

In 1990, Professor Kwanashie after supervising my M.Sc. Thesis from 1987-88 and supporting my PhD programme in Ibadan gave Isaac Ajilima (my colleague and friend) and I the opportunity to work with him on two Rockefeller Foundation funded studies on Agricultural Supply Response from 1990-92 administered by the African Economic Research Consortium (AERC). These produced two articles in the *Nigerian Journal of Economics and Social Studies* (NJESS) and two monographs published as AERC Research Papers Nos. 57 and 78.[9]

Between the collaborative projects, I published five papers that reflected my interest in development oriented policy and concern about policy autonomy. This was in the wake of the policy capture by the World Bank and the International Monetary Fund and

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[9]The articles are Kwanashie, Ajilima & Garba (1997) and Garba, Kwanashie & Ajilima, (1998). The monographs are (Kwanashie, et al., 1997) and (Kwanashie, et al., 1998).

the Club of "donors" turned Club of creditors (the Paris Club). My first publication was a contribution to a departmental project *Economic Update*, which was published in 1987. My contribution on pages 55-58 was titled "Income and Company Tax". It demonstrated my bias towards equality, self-sustaining growth and the policy of following up criticisms with solutions. After assessing the income and company tax policies in the Structural Adjustment Budget of 1987 using standard Keynesian macroeconomics, I concluded that very little would be achieved. However, in going beyond criticisms, I offered that the "key to the ultimate objective of economic development of Nigeria lay in economic independence (that in turn, depended) on an indigenous technological base and control among other factors". To achieve an indigenous technological base, I recommended increased public funding of research, the setting up of an innovation commercialization board and "a framework of structural transformation plan of action". The justification for the framework of a structural transformation plan of action was that developing an indigenous technological base could not be accomplished in the structural adjustment budget that I was convinced was a self-serving foreign imposition. (Garba, 1987).

Mr. D. D. Bolaji and I at the 1990 Annual Conference of the Nigerian Economic Society (NES) developed further, the issue of an appropriate technology policy for Nigeria (Bolaji & Garba, 1990). Based on a conceptualization of technology as a system of reciprocal and complementary relationships between socio-cultural and technical forces, we argued that the idea of technology transfer which anchored technology policy was doomed to fail. This was because socio-cultural forces that interact with technical forces (basic science, engineering science, cybernetics etc) in a technological system are not transferable. The paper then recommended that Nigeria must create a technological system if it wanted to develop. The paper argued that a technological profile of the traditional and modern technological sub-systems was necessary for technology policy. It thus offered an outline of a technological profile and, the associated short term, medium term and long term policy to help Nigeria create the technological system that will drive Nigeria's economic development.

Structural Adjustment was a major area of research for me from 1987-96. In 1989 while I was rounding up the course work for the PhD programme in Ibadan, Professor Sesan Ayodele, who was with the Nigerian Institute for Social and Economic Research (NISER) at the time, encouraged me to write a paper for a conference of the West African Economic Association (WAEA) which held in Lome, Togo in May 1989[10]. The paper, which was accepted for the conference, evaluated the performance of ECOWAS Agriculture under the World Bank/IMF Structural Adjustment Programme (SAP). The paper was critical of (1) the neoclassical counter-revolutionary paradigm which supposedly anchored SAP and (2) the West African countries that accepted and canvassed for the implementation of SAP. The criticism against SAP was that it deliberately poorly framed the analysis of the problem of agriculture in West Africa to produce solutions (liberalization) that served the United States, Japan and the European Union who still protected their agriculture. The paper criticized the leaders of ECOWAS nations for undermining their individual and collective interests because SAP conflicted with the reasons for and the goals of ECOWAS. The paper offered insight into US agricultural policy as articulated by Hubert H. Humphrey and explained why it was necessary for policy makers in ECOWAS to appreciate the hostility of the interests that are embedded in SAP to the development goals of ECOWAS countries. It urged policy makers in ECOWAS countries to reject such policies in favour of a meaningful economic cooperation and integration which was the primary reason for the formation of ECOWAS in 1975.

In all, I published 12 papers on different aspects of structural adjustment in journals, monographs, conference proceedings and books. Most were first presented in seminars, research workshops and conferences in diverse locations: Lome, Abidjan, Nairobi, Uyo, Manchester and New York. Of the 12, three were theoretical papers and the rest married theoretical and empirical methods to evaluate the theoretical foundations of SAP, the asymmetrical games of structural adjustment and the asymmetrical pay-offs of SAP. A key argument in some of the papers was that SAP was not anchored in

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[10] Indeed, my gratitude to him and his family is considerable. First he deepened my understanding about the value of humility and second, he made his home a welcoming place for me and his family was very kind to me. I pray that God will bless them abundantly.

the letters of neoclassical economics but, in the spirit.[11] Second, SAP conflicted significantly with macroeconomic theory in two key areas: *instrument-target relationships* and *counter-cyclical policies*. The targeting principles require that specific instruments target specific problems yet structural adjustment did not target specific problems of Sub-Saharan countries and was falsely branded as a growth-oriented policy (Garba, 1996).

Had the United States, Japan, the European Union, the United Kingdom and China adopted the type of fiscal austerity and monetary restraints contained in SAP in 2007-08 when the global financial crisis raged, the world would have sunk into a greater depression than it did from 1929-33. It is standard macroeconomics that deflationary policies such as SAP do not stimulate growth. By forcing spending cuts, deflationary policies starve economies of the fuel they need for growth. With public spending cuts, public employees lose jobs causing their incomes and consumption to fall. Falling incomes and consumptions have adverse effects on business revenues and profits, business investments and job creation. The recent experiences of Greece and Spain with externally imposed austerity and the consequences (record levels of unemployment, falling incomes, consumption, investment and growth as well as social and political crisis) support Keynesian macroeconomic postulates.

The theoretical papers raise the question why would policy makers in Nigeria accept to implement SAP? The papers (Garba, 1996, 1997 and Garba &Garba, 1997), used games theory to show that were the policy makers fully informed, free to choose and were altruistic agents of their nations, they would not have chosen SAP which was adversarial to the interests of their principals and often required violent suppression of the same principals. The paper suggested that the policy makers chose SAP because they were un-free, naïve, self-loving or some combination of the three. Whatever was the case, the economic costs in terms of lost growth and welfare

[11] The letters of neoclassical economics are given by its foundation, theories and predictions while its spirit is its preference for markets and liberalization. SAP emphasizes liberalization and markets and is therefore, consistent with the spirit of neoclassical economics. However, SAP violates a key principle of choice theory that is, free will. It was an imposition of Sovereign Creditor cartels (Garba and Garba, 1997).

was significant. It is generally accepted that the decade of SAP (1980s) was a lost decade for Sub-Saharan Africa.

Two experiences gave me greater insight into policy challenges in Africa. The first was at a conference in Zaria in 1990 when I presented a paper on "Understanding the Nigerian Inflationary Process: A Case for Inquiry". The paper challenged the notion of inflation as a sustained rise in prices which was the orthodox definition of inflation. I was convinced that *inflation should be more generally viewed as a problem of increase in prices and that sustained increases in price was a special case*. Further, that if policy makers were concerned about welfare, the more general concept was better because even a one period increase in prices such as an increase in prices of petroleum products could have significant short term and medium term impact on relative prices, output and productivity growth, real income, income distribution, consumption and welfare. I therefore argued for research that will illuminate the inflationary process such that both monetary and fiscal policies could benefit from the light. The response of the policy makers at the conference surprised me. Though convinced by the core argument, they did not have the patience to inquire about the nature of the inflationary process before making policies. They were far more interested in doing something than in doing the right thing. As I remember our dialogue; their main question to me was: while we wait what do we do? *This was my first encounter with the research-policy divide and the impatience of Nigerian policy makers with policy research.*

A year earlier in 1989 I had learnt another lesson in the research-policy divide: *the hostility of key agents of global industry of (under) development finance to ideas that challenge policy capture by global economic powers.* Structural Adjustment was probably the most successful policy capture in post-colonial history for through SAP, a few powerful countries controlled the domestic policies of a majority of countries using multilateral organizations (World Bank, the IMF and the WTO) and creditor cartels (Paris Club and London Clubs) in an unfair game of surplus appropriation. It became a common experience for foot soldiers (local and foreign) to vigorously defend policy capture. My first experience was at the Lome conference. After my presentation, some of the "development partners" were not impressed by my arguments and said so clearly foundation for the study of African economics. My argument was simple. From my reflections on orthodox and Keynesian economics, it was clear to me that (1) the institutional assumptions which derived from Anglo-Saxon societies were embedded in both theories; (2) the truth of the claims made by the theories depended on the institutional assumptions and (3) African institutions differed from those of Anglo-Saxons. Therefore, following the logical structures of orthodox and Keynesian theoretical systems, it is African institutional foundations that ought to be at the foundation of studies of African economies. I had the strongest "attacks" from employees of the World Bank incidentally those from Africa and South East Asia. It was therefore, a great surprise to me when one of them talked about institutions at an AERC Plenary in 1995 and shortly after, the World Bank's World Development Report 1997-98 recognized formally the role of institutions. The positive outcome from the meeting was that I became aware of Douglass North's work on institutions and, I became even more convinced that in researching policy, the role of institutions must be part of its foundation.

One of the first policy studies that gave prominence to institutions was the AERC funded study "The Determinants of Federal Government Expenditure: 1970-93". After my PhD programme, I stopped treating government expenditure in Nigeria as exogenous contrary to its treatment in Keynesian models. With an unstable fiscal anchor - oil revenue - federal expenditure was better modelled as reaction functions. In addition, rather than the ontological approach of positivism, a documentary analysis of Federal Budgets from 1970 to 1993 was preferred as the context for identifying and formalizing patterns. The documentary analysis (1) confirmed oil revenue dominance and (2) revealed regime specific budgeting philosophy and practices as well as patterns of federal expenditure reactions to changes in actual revenue.

The research was subsequently extended in three directions. The ***first direction*** was a result of exploratory analysis of debt data in July 1995 when I was a Visiting Scholar to the IMF at the conclusion of the federal expenditure study. I observed some relational irregularities between debt stock and debt flows in the published data on domestic debt. The observation and analysis of its implications, led me, upon careful reflection and analysis, to write a paper for an in-house seminar at the Research Department of the IMF. The seminar was kindly organized by Mr. Mohsin Khan who at the time was in charge of the AERC-IMF Visiting Scholar Programme.[14] At the end of the meeting, it was decided that I needed to pursue the issue further. I did and wrote a proposal on the problem, which the AERC kindly funded. The study produced the research report "Federal Domestic Debt in Nigeria: Structure and Growth" and the article "Nigeria's Domestic Debt: Resolution of the Stock-Flow Puzzle and Generation of a Credible Data Set" published by Nigerian Journal of Social and Economic Studies (NJESS) in 1998. At the end it turned out that there was no puzzle but, a lack of clarity in the documentation of data. The key lesson was that it was important for organisations collecting and disseminating data to accompany published data with adequately clear notes. Also, users of data should understand the data they are using before using them for analysis. The contributions of the study were (1) formalization of the framework for domestic debt management; (2) inference about how management of domestic debt weakens fiscal policy by allowing government to avoid the disciplines imposed by budget constraints and (3) fiscal indiscipline makes monetary policy secondary and an accomplice in the weakening of fiscal policy.

The ***second direction*** for the policy research began after the completion of the domestic debt study. It was some synthesis of the expenditure study, the debt study and the PhD study on external shocks and policy response. The second Visiting Scholar appointment at the IMF began after the completion of the domestic debt study. I used the opportunity of the visiting appointment to present my ideas of a formal framework of federal budgeting in Nigeria. I prepared and presented the paper "Political Shocks and Federal Fiscal Operations in Nigeria, 1975-93 at the IMF Research Department Seminar on June 26, 1997. This was probably my first foray into political economy and the main point is that political shocks were as important as external shocks in shaping fiscal operations at the federal level. It thus formalized the centralized

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[14] The paper presented was titled "Fiscal and Domestic Debt Policies and the Growth of Domestic Debt in Nigeria: Preliminary Observations".

fiscal system built under military rule and its implications for Nigerian public finance.

Feedback from the seminar influenced a further development of the framework in the 1999 paper "Regime Change, External Shocks and Federal Fiscal Operations in Nigeria: 1975-93" (Garba, 1999). The paper modelled federal fiscal operations in the context of regime changes and external shocks using stylized facts of the fiscal operations. The stylized facts revealed a dual short-term fiscal process structured by Nigeria's fiscal and monetary laws, a dominance of oil revenue and discontinuities in political regimes.

The paper modelled two parts, *budget targeting process* and ***implementation deviation. Implementation deviation*** was a key factor in the budget process because the unstable fiscal anchor made a significant implementation deviation most likely in every budget cycle. This raised the question: when actual revenue deviates significantly from estimated, how does government expenditure and government borrowing respond? The paper showed that the responses depended on the regime particularly its expenditure preferences, complementary policies and the presence or lack of an in-built stabilizing mechanism in the budget.[15] The model has two important implications for econometric analysis of the budget process. First, structural coefficients are not fixed – they are sensitive to political changes. Second, implementation deviation is sensitive to changes in the parameters. These discontinuities render regression estimates of budget parameters of limited use since parameters average out moving parameters.

The ***third research direction*** was in the area of ***harmonizing fiscal and monetary policies***. The problem of fiscal dominance was a recurring theme in the policy research papers. For instance, the domestic debt study concluded that "the institutionalized subordination of monetary policy to fiscal policy and the legalized

[15] For instance, the Shagari administration (1979-83) built in stabilizers into its capital budget by tying a part of its capital budget to oil revenue that exceeded a pre-determined threshold. When oil revenue was above the threshold, the capital expenditure adjusted almost automatically. The key challenge however, was when oil revenue significantly undershot targets as it happened in 1981. The one-sided built-in stabilizers failed, it triggered the fiscal crisis of 1981. The persistence and deepening of the crisis offered some justification for some regime changes in 1983 and 1985.

impotence of the central bank weaken both monetary and fiscal policy". The conclusion implicitly suggested that improving policy effectiveness demanded greater harmony between monetary and fiscal policy. The challenge however was; *how could harmony be achieved*? The paper "Harmonizing Fiscal and Monetary Policy in Nigeria: A Preliminary Analysis and Suggestions for Further Research" offered some preliminary guidelines. The value of the paper however, lay less in the guidelines but in the areas of ignorance which needed knowledge before fundamental changes could be made. Probably recognizing earlier experience with policy makers and the impatience with research, the paper recommended an incremental approach to improving harmony. It showed that the monetary programming framework used by central bank in the conduct of monetary policy achieved the wrong type of harmony - monetary policy accommodated fiscal policy. The desired harmony was one that strengthened both fiscal and monetary policy and that required fiscal discipline to be binding on fiscal operations and the operation of monetary policy to discipline fiscal spending. The incremental approach was a system of progressive improvements to the monetary programming framework through a progressive research programme which required:

a. a clearer and formal model of inter-governmental fiscal relations and the budget process;
b. a model of the analytical statement of the balance of payments;
c. structural and institutional analysis of the money, currency and capital markets; and
d. a model of the real economy that shows how value is created, distributed and utilized.

The target was a framework that empowers policy makers "to anticipate and plan for smooth adaptations to the dynamics (and contrived volatilities) of globalization . . . (and which) minimizes over time, the sensitivity of the macroeconomic policy regime to external shocks transmitted by the dynamic forces of globalization".

Gender Studies

After the consensus on gender (and on other matters), Dr Precious Kassey Garba and I began a very fruitful intellectual collaboration that produced theoretical and empirical papers on gender, globalization and conflicts. The collaboration enabled me to work directly and indirectly with several gender-based groups such as AAWORD, Women's Research and Documentation Centre (WORDOC) and the International Working Group on Engendering Macroeconomics and Trade Theory. Our studies explored themes such as "Trade Liberalization, Gender Equality and Adjustment Policies in Sub-Saharan Africa"(Garba & Garba, 1997); "Economics of Adjustments and Group Interests" (Garba & Garba, 1997); "Engendering Macroeconomics and Policy for the Development of Africa: Options and Prospects"(Garba, 2003) and "Towards an Engendered Macroeconomics for the Development of Africa"(Garba & Garba, 2008).

The collaborations often *married* gender equality issues to asymmetries in the global trade and financial architecture to illuminate asymmetries at four levels of social aggregations: micro, meso, macro and global. The studies show that asymmetries and disadvantages are not only multi-level, they tend to be re-enforcing. Also, that most international gender analysis tends to limit focus to national and household level asymmetries whereas, for most Sub-Saharan Africans, the global asymmetries strongly reinforce national and household gender asymmetries. Thus there was ample room for African women and men to collaborate to minimize marginalization at household, national and global levels.

One of our major collaborations that we have not yet published is an essay titled: "Gender, African Development and Global Interdependence: Challenges in the 21st Century". Written in 1999, it was a synthesis of most of the gender papers up to that point. We thought that the dawn of a new century offered an opportunity for deep reflections about gender and the development process in post-colonial Africa and to visualize the future against the background of dangers, possibilities and hope. Like other gender papers, the paper formalized a thinking device anchored in a network of relations that evolved historically. After due analysis and evaluation of western thoughts (orthodox, Stieglitz's view of development, the third way, proposals for International Banking Standard), Western institutions, organizations, values, technological changes and international payments and trade, the paper revealed a set of resilient domestic and external obstacles to Africa progress towards gender equality and economic development.

The set of internal obstacles included: post-colonial opportunity and incentive systems that favour treasonable felons, autocrats, femocrats, etc; patriarchy and, "colonial ties and relations which keep African politics, economics, region and regional cooperation unstable and vulnerable". The external obstacles are: (1) western dominance of global politics, economy, international law, etc, which confers on them overwhelming strategic advantages; (2) tendency of western institutions and organizations to polarize genders, people and nations and to reinforce glóbal and national inequalities; (3) duplicity and prejudice inherent in Western values, institutions and organizations. The paper offers for discourse, two ideas: (1) *active thought* and *thoughtful actions* as alternatives to *idle thought* and *thoughtless actions* and (2) an alliance of the dis-empowered African men, women and children to challenge the domestic and external obstacles.

In a more recent work on *Engendering Macroeconomics*, we observed that the main types of disadvantages - gender, class, group and national – tend to be interacting and reinforcing. For instance, a woman in a marginalized nation is more likely to be disadvantaged compared to a woman in a marginalizing nation. Also, a woman whose group is marginalized is more likely to be marginalized than a woman whose group is advantaged. Generally, the more disadvantaged a nation, a group and a class is; the more disadvantaged are the women who belong to them. Given the nexus between gender, class, group and national dis-advantages we asked the question:

> why do human social, economic, political and intellectual network of relations at micro, meso, macro and global levels tend to be asymmetrical producing gender inequity, conflicts and instabilities? (Garba & Garba, 2008).

The question generated two related questions: (1) can humans engineer transitions to non-asymmetrical network of relations and payoffs? (2) if so, how can they do so? It is obvious now; that what is required is a transformation and not just a transition. For equitable, just and fair human social, economic, political and intellectual systems cannot be built on existing human systems of meanings, values and motivations. The paper argued that any engendering of economics that is built on orthodox economic foundations cannot produce insight for making the world equitable, just and fair because equity, justice and fairness are in direct conflict with the core values of materialism, hedonism, self-love, permissiveness, etc that are the core values of orthodoxy. The paper thus recommended a discourse to rethink the concept of values embedded in orthodox economics among a set of philosophical questions that required answers.

In addition to our collaborative work on gender, I published two theoretical papers on gender. The first offered a gender model of production and households (Garba, 1997). The model extended the works of feminists such as Diane Elson leading the drive to engender macroeconomics. There were two main extensions. First, an extension of the two sector model to a five-economy disaggregation of production. Second, differentiation of labour by gender and skills, production technologies by capital input and government-provided infrastructure by location as well as a differentiation of households by gender and employment of head. The gender dis-aggregations produced gender variables that enabled analysis of their determinants and to predict the possible effects of adjustment on different classes of women. Some of its key predictions were that SAP would adversely affect growth in the supply of skilled women workers, gender equality in households; efficiency of reproduction and welfare of women.

The second paper was part of the engendering project and it had the ambitious goal of developing macro-institutional tool for thinking about three types of disparities in Nigeria: space, gender and class. In the set of stylized facts were rules, games, players and the Nigerian environment. In the research towards writing the paper, I came across a short quote that had a profound effect on me. The quote was:

> The basic tool for the manipulation of reality is the manipulation of words. If you control the meaning of words, you control the people who must use the words (Phillips K. Dick, 1986)

From this point onwards, I began to pay much closer attention to words and their meanings. It influenced my subsequent research on the industry of sovereign lending branded as development finance and on philosophy and methodology of economics. It eventually led me to undertake conceptual analysis of key concepts such as scarcity, value, income, *homo economicus*, production, and so on.

The paper focused on real issues of disparities that have been identified as constraints to Nigeria. Professor Sylvester Abumere in his inaugural address had concluded that "distributional inequity is doing havoc to our national development, affecting ethnic harmony, damaging our social cohesion and ruining our politics" (Abumere, 1998). The paper thus expanded on the set of disparities and sought to offer a device for clearer thinking about disparities.

The paper rejected parsimonious generalizations that are blind to real human issues (spatial, gender and class disparities and asymmetries) and to the human cost of their blindness. It chose instead to draw attention to the real issues and their real costs through a tool designed to aid clearer thinking.[16] In developing the tool, the paper followed *"the visible hands of facts"* and the author's introspections about concepts and processes, and judgement about the desirability of equity. The paper articulated the method appropriate to the problems of disparities:

> We propose therefore, that information on Nigeria's rules of human interactions (institutions), players (organizations), their interests and strategies; interactions and the environment within which (the interactions) take place are the logical and factual points of "analytical take-off". Therefore, we begin with an acquaintance with the Nigerian environment, institutions, players and the games and then deduce from it, a macro tool with potentials for aiding inquiries into Nigeria's spatial, gender and class disparities.

In sketching out the tool, the paper adopted a *method of reverse summation*. The method is shown in Figure 3 below. It

[16] The idea by Keynes that a model is a device for thinking influenced this paper(Keynes, 1994).

begins with macroeconomic variables. For each variable for example, Gross Domestic Products (GDP) which is defined as value added of final goods and services, the paper reverses the summation to locate the points of interaction and decision making that generate the observed economic variables. The method was neither Keynesian nor orthodox and indeed, it required freedom from orthodox concept of value and income to include the reproductive and subsistence sectors in the analysis.

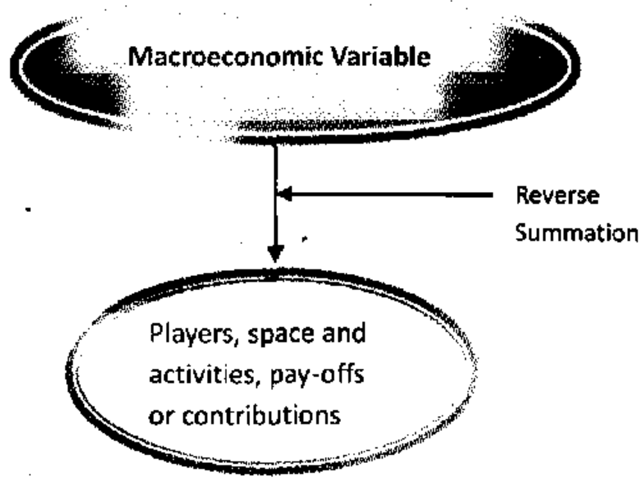

Figure 3: Reverse Summation Process

As a reasoning device the macro-institutional tool drew attention to spatial, class and gender problems of Nigeria and offers explanations for some of the puzzles in Nigeria such as the high levels of poverty in the Niger Delta despite the oil wealth and shows why direct transfers to citizens in the Niger Delta is a possible way of reducing poverty and gender inequalities. The model also reveals some key areas of subsisting ignorance (unknown values, unknown externalities and unknown parameters) that need to be overcome to make thinking about spatial, class and gender problems of Nigeria clearer.

[17]Keynes thought in terms of aggregates and as he explained on page 37 of the *General Theory*, until he had settled the problem about "the choice of units of quantity appropriate to the problems of the economic system as a whole" he could not proceed. In orthodox economics, the procedure is from atomistic agent to market to economy.

Globalization and Conflict Studies

Most of the globalization studies were conducted between 2000 and 2004 and focused on the sovereign credit games, behaviour of government and globalization of finance while the conflict studies investigated the problem of open conflicts when states, institutions and markets are failing.

At the millennium conference of the Nigerian Economic Society in 2000, I presented a paper on "The Economics of the Relations between Official Lenders and Governments of Sub-Saharan Africa (SSA) Countries". Phillip Dicks insight about words influenced this paper. At the onset the paper identified two key constraints to understanding financial flows between sovereign lenders and sovereign borrowers. The first was analytical biases and the second, conceptual ambiguities or manipulations. The paper undertook a conceptual analysis of the concepts of Official Development Assistance (ODA) and its components; grant, loans and other development finance and donors. It shows that ODAs are essentially sovereign lending facilities (SLF) provided by rich nations to capital scarce developing nations at conditions that favour the rich nations. Also, the word "donor" or phrase "donor community" misrepresents what providers of tied grants, tied credit, multilateral credit and bilateral debt restructuring really are. They are rational and strategically advantaged sovereign players who deploy all their advantages shrewdly to secure the maximum possible pay-off for their stakeholders. The development of a supply-leading "global industry of development finance" where the supplier is king is probably, the most successful *sovereign con-game* of all times. It was not accidental that by the 1980s, the real nature of sovereign lending and borrowing game became clear with the Paris Club and London Club of debtors working together with the World Bank and the IMF to capture the policy space of first, the most externally indebted countries and gradually most poor nations.

The paper hoped that by illuminating the essential nature of the game of development finance and its asymmetric nature and pay-offs, that sovereign borrowers like Nigeria would be better informed and alter their strategies from naivety and passivity to the informed and strategic. However, as Nigeria's external debt rose steadily, I sought to understand why the Nigerian government was responding seemingly naively and passively. "Globalization and the

Nigerian Economy: Behaviour of the State and the Economic and Social Consequences"(Garba, 2004), was the product of my research and reflection. I reflected on the behaviour. The paper uses game theory to analyze the behaviour of Nigerian governments. It shows differential behaviour in international games (passivity); collusion in a few states vs. non-state games (e.g. oil and gas) and Stackelberg leadership in games involving asymmetrically disadvantaged non-state players. It also showed logically and empirically that international passivity was the most costly in terms of macroeconomic stability, economic competitiveness and high and sustained social costs. Further, with the twin problems of national failure and asymmetries of information, the state was unlikely to act strategically in global settings. Yet, if the state fails to act strategically in international games and in oil and gas games, the marginalization of Nigeria will be progressively sustained. The behaviour of the Nigerian government puts at great risk the future of Nigeria as a viable state.

A subsequent paper on conflicts explored this theme further. The paper "Open Conflicts when State, Institutions and Market Fail: The Case of Nigeria" (Garba & Garba, 2002) was commissioned by the AERC as part of the AERC/IEA/World Bank study on post-conflict economics. The paper had two parts: a theoretical part and an empirical part. The theoretical part challenged the explanations of post-Structural Adjustment conflicts in Africa in terms of blood (ethnicity), babies (population) and motives (grievance and greed). It argues from philosophical and historical perspectives that conflict is inherent in human beings also, a driving force in the evolution of human societies.[18] In establishing social order that allows people to resolve their differences peacefully, human beings have laid claims

[18]Viewed as a struggle between antithetical forces, conflict could be inherent (an inner struggle) or open (when the antithetical forces fight). Arguably, all humans face some type of inherent conflict –passion/pleasure/prudence; mind/matter; duty to God/Duty to State; good/evil, etc. The history of human societies also reveals antithetical forces: order/anarchy; state/citizens; social cohesion/individual liberties; slave/masters; tradition/modernism/postmodernism/; science/religion; capitalist/worker; socialism/capitalism; debtor/creditor; unlimited wants/limited resources; and so on.

to being civilized. Philosophers thus treat social order as a virtue achievable within states.[19]

The paper argued that social orders were key to understanding conflict also, that in a period of global transitions, turbulence and insecurity, it was reasonable not to overlook the link between national and global social orders. It identified three key elements of a national social order (the state, the institutions and markets). It then proposed that ***when the three elements of a national social order fail, open conflicts are likely to become more prevalent within the nation***. The existence of a global social order required analysis of the nature of that order and its relationships to national social orders. The paper thus established (1) a nexus between global and national social orders and (2) a threshold for the failure of national social orders. It then applied the threshold analysis to Nigeria and concluded that the Nigerian state, institutions and markets were failing. Also, that the global social order is a destabilizing force because it was built to favour the strong and the advantaged and to enable them take advantage of the weaknesses of weaker nations. The paper ended thus:

> The failures of national social orders in weak countries could not be legitimately isolated from the failures of a global social order. For humanity as a whole therefore, the failure of the global social order poses the greatest danger to peace. But then, are humans chasing illusions or simply being inventive?[20]

Two papers on globalization of finance pursued further the thesis that the global social order was (1) biased against weak

[19] Aristotle believed that political society exist for noble actions and without a state man was worse than a beast. Both Aristotle and Plato offered philosophical contemplations of the ideal state in *Politics* and *The Republic* respectively. Of course, they disagreed about what state was ideal and humans have not developed ideal states.

[20] This rhetorical ending puts to question the willingness of strategically advantaged nations to subordinate their self-interests to promote the common good of all humanity. Peace will be elusive if the strategically advantaged are unwilling or unable to resist the temptations to exploit the strategically dis-advantaged. It is also possible that the strategically advantaged may be inventive in leading the world in chasing illusions of peace.

nations and (2) poses a danger to global peace. The papers were titled "Globalization of Finance after the Bretton Woods Conference of 1944" and "Globalization of Finance: Policy Challenges and Options".[21] Chronologically, the first paper was the foundation for the second. However, the second paper was the first to be published in 2001 by the *Afribank Journal of Economics and Financial Review* while the foundation was published in 2004 by the Nigerian Economic Society (NES). In retrospect, I am convinced that we should have published the two papers as a book because (1) together they reveal the dangers at global and national levels and (2) the conclusions in the papers were almost prophetic for both Nigeria and the global economy.

In "Globalization of Finance After the Bretton Woods Conference of 1944", we traced the evolution of the global financial architecture from its institution building age (1944-70); through the age of great instability and reform (1971-88); the golden age (1990-99) and to the then cloud of impending transition (2000). The paper identified the key multilateral, regional, bilateral and domestic building processes that produced the key institutions (World Bank, IMF, OECD, USAID, DFID, etc), the collusive oligopoly of the industry of development finance, the transition from the "Gold Standard" to a regime of financial liberalization; the changes in domestic financial laws in the United States; the effects on financial markets and financial products; the gradual disconnection of the financial economy from the real economy; the episodic failures of banks and financial markets; the responses of rich countries to banking and financial crisis and the institutionalization of moral hazard and rentier capitalism; the tendency to shift costs of banking and financial crisis to citizens of weaker nations. The paper argued that in the transition from the Gold Standard to the flexible exchange rate regimes, a virus of volatility appeared to have been sown in the heart of global finance. As a consequence a pattern of global volatility began to emerge from the late 1970s: the debts crisis (early 1980s); the Mexican peso crisis (1994-95); the Asian banking and financial crisis (1997); the Russian currency crisis (1998) and the

[21] Professor M. O. Kayode, one of our mentors deserves credit for demanding a paper from Professor Kassey Garba and I, and for comments on an earlier draft of the paper.

Brazilian Currency crisis (1999). In each of the crisis, speculators were bailed out at growing costs. The paper expressed its concern thus:

> In bailing out speculators (hedge funds managers and banks), the US revealed a preference for systemic survival . . . regardless of its economic costs on the welfare of citizens. In the US bailouts, the big players acquired safety and certainty in the knowledge that the United States government would transfer the costs of financial crisis to foreign victim countries and their citizens. Consequently, the risky investors and speculators have no incentive to avoid taking the type of risks that precipitate crisis.

Through its arranged bailouts, the paper inferred that the United States had "weakened the foundations of the global financial architecture that had played a commanding role in building." Further, that:

> as long as it is possible for the US and its allies to transfer the costs of financial volatility to others, there would be no sufficient incentive for the US or its allies to negotiate for a more stable, fair and competitive global financial architecture.

The paper anticipated the transition in global power relations from lessons of history and from the emergent signs of (1) the peaking of US power; (2) the ascendancy of new economic powers: China, India and Brazil and (3) the rebounding of Russia under President Putin.

The lesson for Nigeria was offered in the very last paragraph of the paper.

> Regardless of what the future outcomes would be, it is critically important for countries like Nigeria, who are limited to the most inefficient segment of the international financial system, to overcome the illusions that locked them into retrogressive and destabilizing relations. If "developing countries" do not overcome the illusions . . .

> the future of their economies and people may be worse than the present".

The "Globalization of Finance: Policy Challenges and Options" sought more specific lessons for Nigeria in terms of its options in dealing with globalization of finance and the possible challenges. The primary concern was the exuberant way authorities were responding to globalization of finance. The paper identified challenges at multilateral and local levels that needed to be properly understood before engaging more effectively with globalization of finance. One of the key challenges at the multilateral levels was the rules and incentive systems which made financial shocks "more frequent, speedier, more contagious and more destructive". The rules and incentive systems were rigged in favour of rich countries, their banks and speculators. The second problem was that the US was the major referee and its financial institutions were the major players. Because the differences between referee and players are blurred by "the iron triangle of special interests, lobbyists and legislation", financial games could not produce "fair pay-offs". The challenge for Nigeria was (1) how to design and implement rules of engagement that do not subvert chapters II and IV of the 1999 Constitution of the Federal Republic of Nigeria and (2) the quality of refereeing players adept at exploiting loopholes and Nigeria's version of the triangle of special interests, lobbyist and legislation.

The paper was concerned that the "financial referee" the Central Bank was conceding to special interests to deepen and widen the influence of globalization of finance in Nigeria. By rushing to "universalize" banking in Nigeria, the Central Bank was failing to learn the lessons of universal banking in the United States in the 1980s or, from the failure and liquidation of 26 banks in January 1999 which cost 50,000 jobs and about ₦18 billion. The paper also noted that:

> the "fast track approach (by directive) to Universal Banking in Nigeria contrasted with the legislative approach by the United States. In addition, the directive contains ambiguities (especially with conditions for obtaining licenses" and loopholes that license banks could exploit.

The paper warned against the exuberant way Nigeria was engaging with globalization of finance in 2000, noting that Nigeria seems "to be heading exuberantly into the depths of financial liberalization without learning from its own experience with the (borrowing) and import bubbles of the late 1970s to 1982." It advised for a cautious approach that had four key elements: progressive upgrade in the capacities of referees and players to act strategically and consistently with the interests of the nation; reduction of external debt to free policy from its captors; improvement in macroeconomic fundamental and building of economic institutions. The paper ended with three lessons of globalization. First, that self-preservation, deep and clear thinking and good memory are virtuous attributes. Second, dogma is folly; no idea is faultless and ideas embed interests of those that peddle them. Three, prevention is better than cure.

Unfortunately, the warnings went unheeded. We have not estimated the costs of the episodes of banking crisis after that of January 1999 but clearly, the cost has risen exponentially for every banking crisis tends to cost more than the previous.

Theoretical Studies

Several studies made theoretical contributions to gender studies, informal economy, globalization, public finance, sovereign creditor-borrower relations, the coincidence of market failure and state failure; the political economy of oil and gas and so on. Some of the theoretical works in gender studies, globalization, public finance and international finance contributions have been discussed. In this section I will highlight theoretical works in three areas: market failure and state failure; the informal economy and the political economy of oil and gas.

In "Market Failure, State Failure and Pollution in Nigeria: A theoretical Investigation of Two Cases" (Garba & Garba, 2001) we explored what the mainstream literature had not yet fully explored: a simultaneous failure of market and states.[22] We investigated cases of

[22]That neoclassical economists and Keynes have contrasting views about the government is a historical fact. In the *General Theory* Keynes assigned the responsibility of meeting deficiencies in aggregate demand to the state. In addition, he canvassed for a socialization of capital to cause the euthanasia of the rentier capitalist. The neoclassicals on the other hand, distrust governments. Yet,

pollution: gas flares and the case of diesel and gasoline pollution. In the case of gas flares, the market fails because polluters have no incentive to stop polluting and the government fails because as a joint venture partner of oil companies it is also a joint polluter. Limiting quantity of gas flares in the short term will cause a fall in oil revenue which has adverse effects on fiscal operations. Clearly, neither private nor public polluters have an incentive to reduce pollution. As a passive player in joint venture partnerships, the government is not able, even over a longer term to control the quantity of gas flares. In the case of AGO and gasoline flares, polluters have no incentive to reduce pollution and taxes are ineffective because of a lack of alternatives to road transport, poor supply of electricity and vintage carrying units and generators. In both cases that exemplify the simultaneous failure of the market and the state; social (dis) equilibrium is generated with high, persistent and rising social costs.

The informal sector is the dominant sector in Nigeria in terms of contributions to GDP and employment yet, the behaviour of the economic agents are not well understood. In the paper "The Informal Economy and Government Policy in Nigeria: Analytical Implications of Gender Constructed, Geo-Ethnic and Religiously Diverse Agents with Incomplete and Asymmetric Information" we sought to contribute to understanding the behaviour of agents in the informal sector. The paper claimed that when informal economic agents are gender constructed and their geo-ethnic and religious circumstances are heterogeneous, (1) the knowledge problem is not uniform, (2) rationality is to be established not assumed; (3) relations are asymmetrical, (4) choice situations are strategic and (5) the behaviour of economic agents are better understood by observation than by abstract theorizing. The paper offers an experimental research approach as a means of relaxing the knowledge problems of researchers and, the revealed constraints of economic agents.

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even the neoclassicals concede that markets fail for a variety of reasons: imperfect markets, externalities, asymmetries of information and inequalities in distribution of incomes. Neither Keynes nor the neoclassicals however, have a solution for a simultaneous failure of government and markets.

The agitation for resource control seems to be founded on three assumptions. (1) the Federal Government controls Nigeria's oil and gas resources and (2) oil producing states/ethnic nationalities can control the oil and gas resources should the federal government cede control. The paper "The International Political Economy of Oil and its Implications for the Niger Delta Crisis" formalized a political economy framework. The framework (1) formalizes the economics of oil and gas in terms of its strategic and rentier characteristics and (2) uses game theory to show how the rent is contested for and shared. It shows that the economics of oil and gas works against oil producing communities and countries in favour of a rentier global oil and gas industry. Also, international politics of oil and gas work against oil communities and countries. Oil producing communities and governments that threaten the rent appropriated by oil companies are susceptible to foreign threats. Oil producing communities are therefore, less likely to find effective solution to their problems from their government or from the international community.

In a latter paper, we use game theory to show why a cooperative solution is better for all Nigerian players (government, oil producing states, non-oil producing states and oil producing communities) than the status quo. Also, that a cooperative solution would require (1) agreement on a general principle of derivation and (2) strategic management of the oil and gas resources by Nigeria represented by its governments to exploit value at all points on the oil and gas value chain. The oil and gas game can be a win-win game for all Nigerian players. However, unless they cooperate, the global players will win continuously at the expense of Nigeria and a majority of its citizens. Thus, making the right choice requires not only knowledge but also, wisdom and understanding.

Philosophy and Methodology

My major work on the philosophy and methodology of economics was written in 2002 and presented at the Special Session on the Teaching of Economics at the Annual Conference of the Nigerian Economic Society. The presentation was titled "An Essay on the Philosophy and Methodology of Economics". In writing *The Essay* I stood on many powerful intellectual shoulders. Access ironically to many was facilitated by my visiting appointments at the

IMF in 1995 and 1997. During my first visiting scholarship at the IMF in 1995, I had the opportunity to buy several books on philosophy and methodology of economics by Mark Blaug and David M. Hausman that helped to clarify some of my concerns about economics. I also committed to reading first hand, Adam Smith's *Inquiry into the Wealth of Nations*; Cournot's *Researches into the Mathematical Principles of Wealth*, John Stuart Mills' "On the Definition and Method of Political Economy"; William Stanley Jevons' "Brief Account of a General Mathematical Theory of Political Economy" (Jevons, 1866); J. M. Keynes' *General Theory*(Keynes, 1936), Milton Friedman's *The methodology of positive economics*(Friedman, 1953); Terence Hutchison's *Knowledge and Ignorance in Economics*(Hutchison 1977); Karl Marx's "Ideology and Method in Economics"; Thorsten Veblen's "The limitations of marginal utility"(Veblen, 1994); Ojetunji Aboyade's *Integrated Economics*(Aboyade, 1983); Onimode's "Towards New Orientations for Economics in Developing Countries"(Onimode, 1978); Eskor Toyo's "Economic Laws and the Nigerian Economy" (Toyo, 2008) and so on. In addition, I carefully read through W. J. Earle's *Introduction to Philosophy* (Earle, 1992).

When I wrote The Essay, I was deeply concerned about the knowledge content of economics and by the relevance of economics. I had followed the contribution of Mills, Jevons, Marshalls and John Neville Keynes (the Father of J. M. Keynes); the challenges of T. W. Hutchison, the responses of Machlup and the F-twist thesis of Friedman; its untwisting by Musgrave; the heterodox approaches of Marx and Veblen and so on. I also followed Aboyade's argument about the organic beauty of economics –a critic of the micro-macro divide; Bade Onimode's criticisms against the "fundamental incongruence between paradigm and objective reality" and Eskor Toyo's explanation of why economic policies do not work in Nigeria. Eskor Toyo argued that policy failures were explained by a lack of knowledge about the Nigerian economy by teachers and policy makers; the reliance on irrelevant or misguided economic thought for policy design; the dominance of external interests in policy making and, the employment of phony goals to cover up foreign interest driven policies.

At this point in my development, the consequences of *policy capture* was obvious in the growing disconnect between resource endowment and policy outcomes, and also in clear signs of state, institutions and market failure in Nigeria. As an economist who had been frustrated with the methodology of economics, I began to question the value of what I had learnt, taught and still teaching. I was concerned that we (economics teachers) may not be helping students and policy makers to acquire the type of knowledge for good economic practice and, for good policy making.

In The Essay I used the metaphor of carmakers and drivers to illustrate the problems that students and policy makers may have. I wrote:

> A person does not have to possess *knowledge* of mechanics or internal-combustion engines to successfully drive an automobile. However, car makers have to have *knowledge* of mechanics and internal-combustion engines as elements of a *set* of knowledge they have to have to be successful. Indirectly therefore, the driver *depends* on those to whom knowledge of mechanics and of internal-combustion engines is a necessity. It is reasonable to expect that the car and, the act of driving it are *contingent* on knowledge of mechanics and, of internal combustion engines that car makers have; without the knowledge the car could not exist and the person could not be driving the car.

Then I applied the reasoning to policy makers:

> The typical economic policy maker in Nigeria is like the driver of the automobile, policy predictions of economic doctrine the analogy of the car while the economic doctrine is the analogy of the knowledge required to make a car. It follows therefore, that economic policy action and economic policy success *–in terms of stated goals-* are contingent on the knowledge embodied in the economic doctrines from which policy predictions derive. The cost of knowledge failure is grave to a society just as a brake failure is to a car driver.

And to students:

> The typical student of economics in a typical Nigerian university learns and assimilates *doctrines* of economics and at best, acquires some *know how* (practical skills).[23] Unlike the policy maker who tries to drive the car, the typical graduate of economics hardly attempts to drive the car. Rather, the typical student uses the proof of ownership of the car –the B.Sc. Economics certificate – to acquire a job that often, does not require the use of the type of car the student has acquired.[24]

This led me to pose an epistemological question: "*is the belief of the policy maker that the policies predicted by received economic doctrines justified true beliefs*?" The point of the question is, if the economic doctrine the policy maker is using to make policies is untrue, the policy maker is ignorant about the economy towards which his policy is targeted. Because of his ignorance he is unlikely to choose or implement the right policy. Consequently, neither the output nor the outcome of policies will be sound. Similarly, if teachers of economics are teaching untrue doctrines, then students will graduate in ignorance and become a danger to the economy should they practice in their ignorance. The danger is not just because they will choose and implement the wrong policies (problem of adverse selection) but that their ignorance will breed in them a doctrinaire or rigid attitude anchored in the false confidence that ignorance gives. As I used to tell my students, ignorance is not the problem. The problem is *when one does not know that one does not know*. The individual becomes unwilling to learn and becomes un-teachable.

I therefore put forward four questions that philosophers of science, social science and economics have contemplated: *what is a science? is economics a science? can economics be a science? should economics be a science*? I also put forward two ethical questions: Is it prudent to maintain a belief in the policy predictions of economic doctrines, regardless of experience? Is such a belief morally justified?

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[23] The set includes data collection, data analysis, computer skills, writing skills, etc.

[24] In most cases, the student packs the car acquired in the university and uses that which the employer believes is more useful. Sooner than later, the university acquired car falls into disuse.

To the situation of the student/graduate of economics I posed additional questions: Does the graduate of economics *know* how the economy works? Can the student practice good economics in Nigeria? What does good economic practice consist of? Is good economic practice possible? Are students being trained to practice good economics? Do graduates of economics do good economics? Basic to all these questions is the reality-theory gap. If the gap between theory and reality is so wide that theory is misleading or irrelevant as Keynes and Eskor Toyo claimed, graduates of economics will not know how the economy works and their practice and their doing of economics will not produce either sound output or sound outcomes. Worse still, the graduates' doing and practice of economics particularly in the policy arena may be truly disastrous as Keynes pointed out.

I found it important therefore, to raise and contemplate the questions, convinced that they had "profound effects on the credibility of the *theories* that students learn and assimilate hence, on the *practice of economics* (theorizing, testing, deducing, modelling, sampling, policy analysis and policy implementation). I was aware of the frustration among students, policy makers and non-economics about economics and, the institutionalized "bias against the search for knowledge on how real economies work."[25] I hoped that by raising the questions, students and policy makers will be interested in the way the questions were answered. I expected that they would then channel their frustration fruitfully into acquiring insight into economics as I have done. Also, that philosophy and methodology of economics will become foundational in undergraduate and postgraduate curricular of departments of economics in Nigerian universities.

The Essay had a simple hierarchical schema with the notion of *basicness* in philosophy as foundational. Applying the notion of fundamental or primary, I was convinced that philosophy was basic to methodology and methodology basic to economics. The two premises imply that philosophy is basic to economics. I showed in

[25] For instance, a survey by Colander and Kramer found that only 3% believed that "having a thorough knowledge of economy" was important to success in graduate school compared to more than 50% who believed that excellence in mathematics was the key determinant of success (Klamer & Colander, 1987; quoted in (Hausman, 1992)).

The Essay (1) how philosophy helps to make economic concepts clearer and (2) how philosophy has influenced the ontological approach preferred by orthodox economists and the categories of economics. The concept of philosophy in The Essay was influenced by Earle (1992) and Bertrand Russell's view of philosophy (Russell, 1972).

According to Earle (1992), etymologically speaking, philosophy means "love of wisdom" where wisdom "is used inclusively to cover sustained intellectual inquiry in any area." Earle (1992:3-4) explained further that philosophy is conceptual and its essence, is to attain conceptual mastery by means of *conceptual analysis*.[26] It was immediately obvious to me that "economics concepts like consumer, production, distribution, exchange, value, scarcity, economic problem, choice, free will, price, market, information, perfect market and *homo economicus* or economic man are clear candidates for conceptual analysis." In It was also clear to me that I did not have conceptual mastery of any of these concepts. I therefore, undertook a conceptual analysis of *homo economicus* which I believed to be basic to orthodox economics. The conceptual analysis revealed key metaphysical, epistemological and ethical content of the concept I had hitherto, like most economists, taken for granted.

The following was the conceptual analysis of economic man (*homo economicus*) in terms of necessary and sufficient conditions.

X is an economic man IFF

(a) X has free will
(b) X has perfect knowledge
(c) X is selfish
(d) X prefers pleasure to pain
(e) X chooses independently
(f) X would choose the most preferred option if that option is available[27]

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[26] Before I read Earle, I overestimated the capacity of a Standard English dictionary as a tool for warding off the dangers that Philip Dick (U.S. science fiction writer) alluded to when he wrote the following words in the Introduction to his novel *I Hope I Shall Arrive Soon*. "The basic tool for the manipulation of reality is the manipulation of words. If you can control the meaning of words, you can control the people who must use the words."

[27] The last two necessary conditions are equivalent to saying that man is "an isolated ego, calculating his own advantage" (Earle, 1992:196). This raises the

This conceptual analysis claims that each of the statements is a necessary condition and together; they are sufficient to make X a *homo economicus*. It should be obvious that the conceptual analysis illuminates the concept of economic man better than the phrase rational man. A set of metaphysical questions become obvious: "does X exist?" "can X choose?" and "does X suffer from subjective illusions?". The condition "X has perfect knowledge" means no living human being can be X. Ethical questions also become obvious: "is selfishness good?" and "is it right for X to be an isolated ego, calculating his own advantage"? A methodological issue also arises; if X does not exist, is it appropriate to use X as foundation for theorizing and for generating economic principles *for* societies where X is neither a citizen or leader?

In Bertrand Russell's view, philosophy was "something intermediate between theology and science". He believed that although philosophy shared subject matter with theology; its appeal however, was not to authority but; like science it appeals to human reason. He also established domains for theology, science and philosophy thus:

> All *definite* knowledge – so I should contend – belongs to science; all *dogma* as to what surpasses definite knowledge belongs to theology. But between theology and science there is a No Man's Land, exposed to attack from both sides; this No Man's Land is philosophy" (Russell, 1972)

My views have diverged from Bertrand Russell's position as I would show later. In The Essay however, I inferred the influence of philosophy from economic concepts, methodologies and theories and from the history of economic thought. Some of the philosophical schools and the key questions they attempt to answer are shown in Figure 4. The Figure 4 suggests that (1) epistemology is basic to philosophy of science and (2) philosophy of science is basic to philosophy of social sciences. Two key relationships are also worth noting: "relations between philosophy of science and metaphysics" and relations between philosophy of the social

individual-society problems (see Knight, 1935) and ethical foundations for *homo economicus*.

sciences on the one hand, and philosophy of science, ethics, social and political philosophy, philosophy of religion and philosophy of language on the other. What this means is that *philosophy of social science is not independent* of epistemology, metaphysics, philosophy of science, ethics, social and political philosophy, philosophy of religion and philosophy of language.

Two epistemological questions are significant: *can humans possess knowledge* and *what is the source of knowledge*? Knowledge is either know how (skills) or know that (propositional knowledge). It is the later that is subject of philosophical contemplation. The standard view is that *knowledge is justified true belief*. It is therefore possible to believe that one knows when one does not know because what one believes to know may not be true or one may not have justification for believing that one knows. In The Essay I wrote:

> The conceptual analysis of knowledge as justified true belief implies that the Nigerian student, teacher or policy maker who believes that *p* (economic theory) would not have "economic knowledge" regardless of the intensity of belief unless *p* is true and the Nigerian student, teacher and policy maker is justified in believing that *p*. If X (the Nigerian student, teacher or policy maker) says "I know that *p*" and *p* is false, X makes two mistakes: (1) that *p* is true when it is false and (2) overestimates his knowledge. If X has confidence in *p*, X could become dogmatic about *p* and adopt a defensive posture towards evidence indicating that *p* is false. As we shall show, believers in neoclassical theories tend to resist sometimes "violently", assessment that the set of core *p* of their theories is false logically or factually.[28]

[28] Richard Lester in the early 1940s conducted sample studies of firms to test a core neoclassical proposition that firms maximize profits. His results contradicted the proposition eliciting "angry responses (especially from Machlup 1946, 1947; Stigler 1947), partly because everybody knew he was right" (Hausman, 1994:159).

Epistemology [Theory of Knowledge]

(a) What is knowledge?
(b) How do human beings acquire knowledge?
(Involves analysis of beliefs, truth and justifications)

Philosophy of Science

(a) What explains the success of natural sciences (physics, chemistry and biology) in producing (a) accurate picture of reality (b) intellectually satisfying explanation of a broad range of natural phenomena?

(b) Why have social sciences not achieved the success of the natural sciences?

i. Do social sciences help us to understand human behavior?
ii. Is Individual human behaviour predictable?
iii. Is statistical prediction of aggregate human behaviour possible?

Other Branches of Philosophy

1. *Metaphysics* or *Ontology* [(1) what is there? › contrast between appearance and reality; (2) Does God exist? (3) Do I have a Soul? Are Angels real? (4) Do abstract objects (numbers, sets, concepts, propositions etc., have existence independent of human thinking?]
2. *Philosophy of the Mind*[(1) what is the nature of the mental? (2) How should we understand terms like intention, desire, belief, emotion, pleasure and pain? (3) How do intention, desire, belief, emotion, pleasure and pain enter the explanation of human action?]
3. *Philosophy of Languages* [(1) How are thought and language related? (2) What makes the sentences we use meaningful? (3) How many kinds of meanings are there? (4) How do we manage to use bits of reality to refer to the extra-linguistic world? (5) How much, if any, is our ability to use language innate?]
4. *Ethics* [(1) What is morality? (2) What is the basis of our classification of actions into morally acceptable, unacceptable and obligatory? (3) How does morality relate to religion? (4) How does morality relate to legality?]
5. *Social and Political Philosophy* [(1) How are questions of our personal morality tied to existence in social aggregations – families, nations? (2) What difference does being a citizen of a state make? (3) Where do states come from and what is the source of their authority? (4) Do we – and, if we do, have to obey the laws of the land? (5) When should the laws of the land be changed? (6) what is the relationship – competition? Cooperation? Indifference? – between a desirable life for an individual and for those around that person?]
6. *Philosophy of Religion* [(1) Is religious language meaningful? (2) How do we decide between theism, atheism, and agnosticism? (3) Can God's existence be proven or dis-proven? (4) Is religious faith unreasonable? (5) Does the religious picture of the world make sense? (6) If the religious picture is false is there some other basis of finding human life meaningful? (7) Is the religious picture compatible with the existence of evil?
7. *Aesthetics –includes philosophy of Art* – [(1) What is beauty? (2) What makes an object a work of art? (3) Why are art works so important? (4] Are judgements about works of art objective or subjective?

A

Therefore,

> the Nigerian student, teacher and policy maker who think they know how the Nigerian economy works because they *believe in* neoclassical theory or any other theory open themselves to three mutually re-enforcing errors: (a) confusion of *belief in. . .* for *know that*, (b) the theory is

false, and(c) overestimation of their inventory of knowledge.

The question can humans know is much debated. At one extreme is the view that humans cannot know which immediately raises the question *how does the skeptic know that humans cannot know*? What has therefore dominated the debate is skepticisms about faculties (mind and senses) and skepticism about the ***transcendental reality*** (the intuitive and spiritual knowledge beyond the scope of the empirical and material).

The debate that has influenced orthodox economics is the skepticism about faculties (the mind/senses divide). Indeed, epistemological debate has influenced philosophy science and, the philosophy of the social sciences. In philosophy of sciences two sets of relations have dominated: theory-reality relation and, the conditions for theoretical success. Conceived as a "family resemblance concept" in terms of a body of disciplines that share "many methods, procedures and techniques" (Earle, 1992), the construction of scientific theory is the essence of science while its goals are *explanation of phenomena* and *prediction*.

Two models of explanation have been offered by Hempel (1965). The first model is the *deductive-nomological* in which the statement of what is to be explained is ***deduced*** from ***true statements of initial condition*** and ***laws*** (nominal necessities). Phenomena thus have epistemic explanations hence, it is impossible to give a good explanation if the statements of initial conditions and the laws are false (Hausman 1992:289). In the second model of explanation – *inductive-statistical* – evidence is the basis for belief that an explanation has been offered. Two weaknesses are emphasized. First that it is not epistemic.

Second, that sometimes, a leap of faith is required to believe that an explanation has been offered. Consider the following schema:

All observed Africans are Nigerians

Therefore, all Africans are Nigerians

The statement all Africans are Nigerians is false because the *inductive inference* is based on the belief that the evidence (all observed Africans are Nigerians) is generally true. These types of weaknesses of the inductive-statistical model of explanations are distrusted by "rationalists." While two remedies are being used (making samples representative) and discovering a *nomic regularity* (law) that supports empirical observations, earlier empiricists like David Hume who believed that senses was the source of substantive knowledge argued that explanation had no place in science. Therefore, "instead of A caused B, it should be Property A and property B are empirically correlated." In other words, *empirical causation* or *empirical correlation* should replace causal determinism.

In all major views of science, "prediction is the second element (to explanation or empirical correlation)" though, predictive success varies from science to science. The theory-reality divide was closed if observation and experiments confirm the theory. The "Ravens paradox" however, challenged the view that evidence can confirm a theory.[29]Thus, the confirmation or verification criterion was supplanted in logical positivism by the "falsifiability" criterion which Karl Popper offered as a means of distinguishing science from pseudo-science. Whereas a science has falsifiable predictions a pseudo science does not.

Thomas Khun (1970, 1974) and Imre Lacatos (1970and 1978) shifted focus from the theory-reality divide and testing as the criteria for evaluating theories to a comparison of theories. Thomas Khun's *Theory of Scientific Revolution* challenged Karl Popper's emphasis on falsifiability arguing that in "normal science" scientists do not tests theories; they solve puzzles: "it is just the incompleteness and imperfection of the existing data-theory fit that, at any time, define many of the puzzles that characterize normal science." Further, that if "any and every failure to fit were grounds

[29] Earle's (1994) account of the raven paradox indicates that the logical paradox of the same evidence not supporting two logically equivalent generalizations: "all ravens are black" and "all nonblack things are non ravens". A white cow is both a non-black thing and a non-raven; a white cow thus supports the statement "all nonblack things are non- ravens. However, the existence of white cow does not confirm that all ravens are black. The appearance of a white raven would falsify the statement all ravens are black.

for theory rejection, all theories ought to be rejected at all times" (Kuhn, 1970 quoted in Hausman, 1994:85).

Kuhn used the concepts *paradigm* and *disciplinary matrices* to distinguish classes of theoretical activities. The disciplinary matrices had four sets:

(a). "symbolic generalizations" – fundamental laws held tenaciously by believers and are not easily reversible;
(b). metaphysical and heuristic commitments – standards for accepting answers to questions or solution to puzzles;
(c). values – commitment to honesty, consistency, respect for data, simplicity, plausibility, precision, problem solving, compatibility with other theories; and
(d). exemplars – strong influence of successful practitioners.

Lakatos (1970, 1978) introduced the concept of a *research programe* to refer to a set of theories connected by *heuristics* and a *common theoretical core*. Lakatos's hard core consists of *fundamental laws* and *metaphysical presupposition* a combination of Thomas Khun's symbolic generalization and metaphysical commitments. Lakatos's heuristics are of two classes: negative (rules that forbid those in research programmes from tinkering with the core) and positive (instructions about how to use the hard core)." The two schemas of Kuhn and Lacatos bring out institutional character of science and offer general ideas for categorizing and evaluating the successes of paradigms or research programmes.

Orthodox economists seem to have accepted the epistemic standards that philosophy of science has set. For instance, John Stuart Mills clearly recognized that it was absurd to think that (1) "*mankind (is) occupied solely in acquiring and consuming wealth*" and (2) that all economic operations - wealth accumulation, production, innovation and exchange flow only from a desire to accumulate wealth, yet that was precisely what he did. And what was the justification, "it is the mode in which science must necessarily proceed". Part of his argument on definition and method is as follows.

On definition he wrote:

> What is commonly understood by the term "Political Economy" is not the science of speculative politics, but a branch of that science. It does not treat of the whole of man's nature as modified by the social state, nor of the whole conduct of man in society. *It is concerned with him* and aims at showing what is the course of action into which mankind, living in a state of society, would be impelled, if by that motive, except in the degree in which it is checked by the two perpetual counter-motives (aversion to labour and desire of the present enjoyment of costly indulgences) were absolute ruler of all their actions. (Mills, 1994:52-3).

On economic operations he wrote:

> Under the influence of this desire, it shows mankind accumulating wealth, and employing that wealth in the production of other wealth; sanctioning by mutual agreement the institution of property; establishing laws to prevent individuals from encroaching upon the property of others by force or fraud ; adopting various contrivances for increasing the productiveness of their labour; settling the division of the produce by agreement; under the influence of competition (competition itself being governed by certain laws, which laws are therefore, the ultimate regulators of the division of produce); and employing certain impediments (as money, credit. ..) to facilitate the distribution. (Mills, 1994:52-3).

In defense of the "*absurd view of mankind*" he wrote:

> All these operations, though really the result of the plurality of motives, are considered by Political Economy as flowing solely from the desire of wealth. The science then proceeds to investigate the laws which govern these several operations, under the supposition that man is a being who is determined, by the necessity of his nature, to prefer a greater portion of wealth to a smaller in all cases, without any exception than that constituted by the two counter motives already specified. *Not that any political*

> *economist was ever so absurd as to suppose that mankind are really thus constituted; but it is the mode in which science must necessarily proceed.* (Mills, 1994:53).

William Stanley Jevons (Jevons, 1866) was convinced a theory of the economy "has always of necessity been mathematical in its subject" because the economy is concerned with quantities. Therefore, applying the powerful methods of mathematics will be successful because its "mathematical principles may become formal and certain, while its individual data remain as inexact as ever." Yet, the true theory will source from a non-quantitative root "*the feelings of pleasure and pain*" for a "large part of such feelings arise periodically from the ordinary wants and desires of body or mind, and from the painful exertion we are continually prompted to undergo that we may satisfy our wants." Economics will then be limited to investigations of "the relations of ordinary pleasures and pains" even though he admitted that motives arising from conscience, compassion, or from some moral or religious sources are nearly always present with us, economics should not be concerned with them. Rather, other branches of knowledge should treat them.

Mills used physical laws (centripetal forces and tangential forces and explanation of the movement of the earth) to justify his method[30]; Jevons used mathematics and, Robbins (1935) employed mechanics to specify what should be in economics and what should go to the "box of *ceteris paribus*". According to him,

> In pure Mechanics we explore the implication of the existence of certain given properties of bodies. In pure Economics we examine *the implication of the existence of scarce means with alternative uses*. As we have seen, the assumption of relative valuations is the foundation of all subsequent complications. . . Why the human being

[30] According to him, "the laws of centripetal force and tangential force must have been known before motions of the earth and planets could be explained, or may have been predicted". Therefore, political economists, "wish through their causes, to obtain the power of either predicting or controlling the effects" they must separately investigate economic phenomena even if the effects "depends on concurrence of causes" (Mills, 1936 in Hausman, 1994:53).

> attaches particular values in this sense to particular things is a question which we do not discuss. That is quite properly for psychologists or perhaps even physiologists All that we need assume as economists is the obvious fact different that possibilities offer different incentives, and that these incentives can be arranged in their order of intensity.

The desires of Mills, Jevons and Robbins to make economies social copies of natural sciences, raises a question that philosophers of social sciences have contemplated: "what kind of a science can economics be?" One of the challenges against social sciences is the "free will question". It is argued that the free will problem limits the chances of economics and related disciplines from producing causally deterministic explanations like the physical sciences. It is suggested that the free will problem makes it difficult for social science to be more than a pseudo science. The argument is: if humans have free will, humans have options when they are making a choice at time *t*. The options for the disciplines in the social sciences are for them to deny that free will exists or reconcile choice (free will) with causal determinism. From the conceptual analysis of *homo economicus*, it is obvious that economics have not denied free will. For choice is basic to theories of economic actors, theories of economic markets and, welfare economics. To deny free will is to bring down the house that Mills, Jevons, Leon Walras, Robbins and all those economics of the Lausanne and Cambridge schools built.

The Essay reviewed the methodologies that economics have used to formulate theories: logical deduction; empiricism; logical positivism and the axiomatic method. The review highlighted two main points. First, there is no agreement among economists on methodology or on the purpose of economics or on its domains. Two, the fact that Friedman's principle of unreality (or *F-Twist* as Paul Samuelson referred to it) has dominated economic theorizing from the 1950s was in spite of the fatal logical flaws and, its impracticability in the conclusive proof of the validity of the claims of orthodox theory.

Herbert Simons (1963) follows up on the critique of the Friedman's *F-Twist* (as Samuelson labeled it) or "principle of unreality" (as Simons called) by Professor Nagel and Samuelson. Both focused on the logical fallacy of the F-Twist. For example, with mounting evidence that Y is false, the truth of Z cannot validate

Y. Simons used the theory of economic actors to derive the two basic premises: (1) X – "business men desire to maximize profit" and (2) Y – "businessmen can and do make the calculations that identify the profit maximizing course of action". From the theory of markets, he derived the statement of the claim: Z – "prices and quantities are observed at levels that maximize the profits of firms in the market". In a theoretical system comprising X, Y and Z, the logical implication is that "X and Y are necessary for Z". Therefore, Z cannot be true if either X or Y is false. With mounting evidence indicating that Y was false, Z could not validate Y. However, Simons points to a more serious flaw: Z could not be tested. His argument was:

> No one has in fact observed whether the actual positions of business firms are not the profit-maximizing ones; nor has anyone proposed a method of testing this proposition by direct observation. I cannot imagine what such a test would be, since the tester would be as incapable of discovering what the optimal position actually is. . . (especially since) we cannot identify profit maximizers.

The Essay also observed that many economists that were proudly building elegant mathematical models or at the technical frontiers were happily ignorant about the metaphysical, epistemological, ethical and social and political philosophical roots of economics or those they were committing themselves to through their models and estimations. As economists get lost in mathematical and technical elegance, national and global financial and economic crisis have become more frequent, more contagious, more costly and more persistent. In developing countries, orthodox theories and practices thrive in teaching, in research and in policy as "orthodox development economics" helps sovereign creditors and their multilateral agents and local collaborators to design "development finance products" that generate payoffs that are increasingly biased against the recipient countries of development finance as we showed in (Garba, 2003) and (Garba, 2005). Table 1 shows some of the products, the theoretical roots and their costs.

> At the end of The Essay I argued that:
> Notwithstanding the influence of equilibrium theory and its resilience, economics remains a contested terrain and the contests remain rooted in philosophical and methodological discord.

I then drew three conclusions from my interpretation of the evolution of the economics and its underlying philosophical and methodological discords. First, that "methodological convergence in economics may neither be feasible nor desirable". Second, the future of economics may lie in greater consensus on methodological pluralism and shifts in intellectual targets from natural to social laws. Third, that "the performance of the economy would be more decisive in passing judgements on theories and theorizing procedures".

Table 1: Record of Development Economics

Period	Dominant Development View	Source of Knowledge	Who paid or pays the cost?
1950s and 1960s	Correcting market failure and engineering growth	Neoclassical theory, welfare economics, Harrod Domar growth model, Vicious cycle of poverty models, etc and mistrust of markets	Population in developing countries
1970s	Getting prices right	Neoclassical theory and mistrust of the state	Population in developing countries
1980s	Getting policies right	Neoclassical theory and mistrust of state	Population in developing countries
1990s	Getting institutions right	New Political Economy, Neoclassical theory and mistrust of state	Population in developing countries

Source: Garba (2003)

Phase 3: The Spiritual Phase

This phase of my life was influenced by my salvation experience and the resulting transformation in the way I see and understand human existence and the purpose of existence. Doubts about secularism gradually took root as I began to read about and reflect on the history of economic thought and accounts of world history particularly, the transitions of civilizations - Summerian, Egyptian, Nubian, Greece, Chinese, Dravidian, Christian, Islamic, Aksum and Western (particularly, its transitions from theocracy to secularism). I found the deep seated prejudice and the network of asymmetries and dis-advantages institutionalized globally by Western civilization unacceptable. The policy and institutional studies, the gender studies and the globalization and conflict studies all convinced me that there was something fundamentally wrong with the system of meaning that shaped secularism and the intellectual enterprise it bred.

The Age of Enlightenment and the Age of Reason were pivotal in the transition to secularism. Enlightenment thinkers had *faith* in human reason to engineer sustained human progress (knowledge, technical and ethical) and faith in science. In addition, they gave greater weight to worldly happiness. Success in science in the 17th and 18th Century gave man self-confidence to assert as Kant did that "*Sapere Aude!* [Dare to know!] Have the courage to use *your own intelligence! is therefore the motto of the enlightenment*" (Kant, 1949 and Microsoft Encarta, 2009). However, science tends to restrict human cognition to what is seen and observed. Yet, there are probably an infinite set of things, phenomena and processes that are not known to the human mind and probably much less to the human eye and experiences. How then can we be perfectly sure that we do not need a transcendental authority to know and to use what we know wisely?

When I reviewed what I know (λ) relative to what I do not know (∞) it was clear to me that what I know as a ratio of what I do not know (λ/∞) is approximately zero. I clearly, do not know enough to deny transcendental reality. On the contrary I have the phenomenological experiences that fully convinced me of *transcendental reality*. A belief in transcendental reality influences me to see things differently, to reason differently and to have a perspective about knowledge, wisdom and understanding that I did not have.[31] More than ever before, I am convinced that human knowledge is too limited and too imperfect to lead humanity to virtuous cognitive enterprises and virtuous existence at the level of individuals, families, households, social groups, nations and globally. Just look around you as you move around; as you listen to the radio ad as you watch the television and as you navigate the World Wide Web. Are you satisfied with what you see, hear, read, know and understand? The simple truth is; I am not.

At this phase in my life, I no longer accept as valid, Bertrand Russell's views that ranks sciences and philosophy above the

[31] A preacher once said, "the man with the experience wins over the man with the argument" (Dr Akpami of the Christian Teaching Center at a Revival in Calvary Baptist Church).

spiritual. Russell's views were obviously biased by his lack of faith in institutionalized religion. The fact that cognitive enterprises are influenced by biases and the high likelihood of *unknown unknowns*[32] means that it is *reasonable* and *wise* to interrogate all products of human thought.[33]

The high likelihood of cognitive biases and unknown unknowns means that it will be dangerous to dogmatically accept enlightenment ideas and the boundaries that secularists have imposed on human cognitive experiences. It is not wise for one to deceive oneself into believing that one is capable of perfect knowledge as orthodox economics have assumed for *homo economics* (a human creation). The human minds that created *homo economicus* as the analytic for economics and logically erected a super structure on it are imperfect. How then, can the product of their minds be perfect? If it is obvious that their thoughts are imperfect why then should we be expected to hold on tenaciously to orthodox economics for as long as economists have despite the (1) valid methodological criticisms by generations of economists and social scientists; (2) the works of cognitive psychologists and statisticians that have provided counter examples to the predictions of orthodox economists; (3) the fact economic history has shown that financial and economic crisis have every deepening of the policy recommendations of orthodox economics and (4) the failure to solve puzzles and paradoxes such as simultaneous failures of governments and markets; mass poverty; failure of economies to provide full employment; consistent volatilities in the global economy/business cycles; growth in poverty; upward shifts in unemployment; globalized growth in asymmetries in participation and in payoffs; and so on.

Economics is at a crossroads. The current global financial and economic crisis has been characterized by huge losses by financial institutions and the demise of financial institutions. Furthermore, there have been substantial bailout costs that triggered sovereign debt crisis in the Euro-zone; growing spread of policy

[32] Unknown unknown refers to events/things that people do not know that they do not know.

[33] The old FASS taught us to interrogate all products of human reason and observations. Unfortunately, the rigorously critical tradition has at best weakened.

capture (Greece, Portugal, Ireland, Spain, etc); disconnect between finance and the real economy globally and low economic growth in major economics. The crisis has also resulted in record levels of aggregate and youth unemployment; high costs of government bailouts and disproportionate costs of government response to the global financial and economic crisis and so on. These expanding set of concrete economic problems, the deepening and spread of social and political problems across nations of the world and the spread of violent conflict and insecurity globally call for a deep rethinking of national and global social orders.

Orthodox economics has been the foundation of national and global social orders for at least two centuries. In these two centuries, there has been the worst incidence of wars[34], exploitation (colonial and post-colonial) and global economic and financial crisis and their associated economic, social and political consequences. It is also true that human beings have made many scientific, technological and economic advances that have improved their material conditions. The question is, has material improvement translated to a more humane, more harmonious and more civilized world where virtues are the essence of human choices, human action and human relations? I doubt that. I believe that the type of economics that has shaped the world for much of the last two centuries is, at least, one of the important factors that influenced the path of the world to the current state of globalized chaos and discontent. If I am right, then we have to have a serious debate about the economics that should guide the future. Wisdom teaches that it is foolish to do the same thing several times over yet, expect different results.

An Argument for a New Foundation

The Foundation and its Fatal Flaws

Knowing the structure of economics helps to identify the real foundational problems. The literature offers a diversity of perspectives on the structure of economics. Table 2 summarizes three of such perspectives. The views of Latsis and Weintraub are similar: economics makes *ontological commitments* (positivism and equilibrium analysis); and proceeds from *metaphysical and ethical*

[34] Two world wars (World War I and World War II); the Arab-Israeli Wars; the Korean War; Vietnam War; the wars of political liberation in Africa, Asia and Latin America; the Iraq-Iran wars; the Balkan wars; the Afghanistan Wars; the Iraq wars; China-India-Pakistan wars; and many civil wars and insurrections including those currently on-going: Syria; Somalia; Mali; Nigeria; and so on.

assumptions about the *nature* of economic actors, their environment, economic phenomena and; the *nature* of markets. Hausman's structure offers more details especially about the set of assumptions, about the commitment to scientific goals of explanation and predictions and the employment of *comparative statics* to make predictions. In addition, he presented four theses which he believed "define the global strategy and structure of economics" and they are:

(a) "Economics is defined in terms of causal factors with which it is concerned, not in terms of a domain."
(b) "Economics has a distinct domain, in which causal actors predominate."
(c) The "laws" of the predominating causal factors are already reasonably known
(d) Thus Economic theory provides a unified, complete but inexact account of its domain.

The theses had two authorities: Mills (1836) and Robbins (1935). To understand the theses, I use four questions as guides. First, what is the domain of economics? Second, what causal factors predominate in the domain of economics? Third, which laws are assumed to be reasonably known? Four, what makes economics separate, unified, complete but inexact?

To Mills, the domain of political economy was limited to "the phenomena of a social state as takes place in consequences of the pursuit of wealth". Such phenomena included wealth accumulation, production, innovation and exchange that flow only from a desire to accumulate wealth. It excludes all human passion or motive except aversion to labour and the "desire for present enjoyment of costly indulgencies". If we include Jevons as an authority, then we must expand Mills' domain to include all desires arising from "the feelings of pleasure and pain" but exclude, all other motives for human actions: conscience, compassion, moral or religious motives. Robbins rooted his concept of economic phenomena on what he claimed to be four characteristics of human existence: (1) ends are various; (2) time and means for achieving them are limited – "life is short. Nature is niggardly"; (3) time and resources have alternative applications and (4) ends have different importance. He argued therefore,

> But when time *and* the means for achieving the ends are limited and capable of alternative application, *and* the

> ends are capable of being distinguished in order of importance, then behaviour necessarily assumes the form of choice. Every act, which involves time and scarce means for the achievement of one end, involves the relinquishment of their use for the achievement of another. It has an economic aspect. (Robbins, 1935, reprinted in Hausman, 1994:84).

Table 2: Three Views of the Structure of Economics

Economist	Core of Orthodox Economics	Fundamental premises
Spiro Latsis (Latsis, 1976)	1. Decision makers have correct knowledge of the relevant features of their economic situations. 2. Decision makers prefer the best available alternative given their knowledge of the situation and of the means at their disposal 3. Given (1) and (2) situations generate their internal "logic" and decision-makers act appropriately to the logic of their situations 4. Economic units and structures display stable, coordinated behaviour.	• Economic agents have perfect information • Economic agents maximize utility (consumers) and maximize profit (producers) • Equilibrium is the norm.
E. Roy Weintraub (Weintraub, 1985)	1. There exist economic agents 2. Agents have preferences over outcomes 3. Agents independently optimize subject to constraints 4. Choices are made in interrelated markets 5. Agents have full relevant information 6. Observable economic outcomes are coordinated, so they must be discussed with reference to equilibrium states.	• 1,2, 3, 5 imply that agents are rational • 4 implies that markets are interdependent • 6 imply that equilibrium is the norm
Hausman (1992)	1. Laws of choice theory and heuristics (perfect information, continuity, existence of markets, perfect competition, etc), assumptions about institutional, epistemic or physical conditions. 2. Assumptions are supposed to be true or not essential. 3. Partial or general equilibrium 4. Comparative static analysis 5. Definition of rationality 6. Equilibrium theory provides the "positive" foundation for the credibility of the claim that perfect competition is morally a good thing 7. Equilibrium model shapes the whole theoretical enterprise.	• General description of the salient features of the orthodox theoretical enterprise • 1,7 specifies the key assumptions • 3 and 4 specify types of analysis • 6 and 7 specifies that equilibrium is the norm

Source: Organized from Hausman (1992:86-90)

The domains specified for economics, predetermine the dominant causal forces of interest. The causal relations are *desire-action* relations (Mills, 1836 and Jevons, 1866) and *means-ends* relations (Robbins, 1935). The causal relations are anchored in what were assumed to be fundamental laws: "a greater gain is better than a smaller" (Mills, 1843, 6.9.3 quoted in Hausman, 1992:93) or "individuals can arrange their preferences in an order and in fact do so" (Robbins, 1935:78; quoted in Hausman, 1992:93). To appreciate whether they are indeed fundamental laws or just hypothesis from which Mills and Robbins thought, we consider the "*axiomatized*" version of the theory.

The so called "fundamental laws" have been formalized into axioms of preferences, axioms of utility maximization, axioms of profit maximization and axioms of choice sets (consumption set and production set) that *illuminate* the nature of man in orthodox economics. The standard axioms of preference are the axioms of *completeness, transitivity, continuity, strict monotonicity* and *convexity*.

Let us clarify what these abstract concepts mean and the nature of man they assert. Completeness and transitivity are mathematical properties of binary relations while continuity and convexity are mathematical properties of functions and sets. The axiom of "strict monotonicity" is the formalization of the rational hedonism of Mills and Jevons. Its mathematical equivalent is an increasing utility function.

What the axioms mean in economics is more important than what they mean in mathematics because mathematics is to economics, a tool of analysis. In Mills, Jevons and Robbins economic domains and the causal relations specific to it, the core consisted of the nature of the economic phenomena, the nature of man and the causal relations of interest. Therefore, an axiom must be first understood in terms of the core. The axioms of completeness and transitivity and "strict monotonicity" endow man with *ability to compare all alternatives* (completeness); *ability to compare consistently* (transitivity) and *formalize man as a rational hedonist* (strict monotonicity). The axiom of consistency ensures that *a consumer does not suddenly reverse his preferences* while the axiom of convexity ensures that the desired solution is an interior one to represent *man's preference for variety*.

All the axioms put together, expose the primary goal of the theoretician, which is to arrive at predetermined answers. The answers being (1) to show that real valued utility functions that represent specified preferences exist; (2) to use the real valued utility functions to derive goal equilibrium for the consumer and (3) to apply comparative analysis to the goal equilibrium to derive demand functions and demand correspondences. The axioms of preference produce *increasing utility functions* which joined to the axiom of utility maximization and the budget set produces the desired consumer optimum. Comparative analysis is applied to consumer optimum producing the desired demand function or correspondence.

A few points are appropriate at this point. First, metaphysically, economic man (*homo economicus*) does not exist: no human being that exists knows all the alternatives for any given choice situation or is able to rank all alternatives completely and consistently. Herbert Simons enlightened economists and their followers that the fundamental issue is not that humans do not have perfect knowledge but that *humans cannot have perfect knowledge.*[35] Second, real people have *intrinsic motivation* as well as *extrinsic motivation*. For some, the intrinsic dominates while for others, the extrinsic dominates. Third, social scientists have powers to manipulate and to trigger behaviour that fulfill their prophecies. Thus even if human beings have become more selfish, there is a likelihood that the influence of economics and its maxim - *greed is good for self and society* – has contributed to institutionalizing in social orders at all levels of social formation the rationality of materialism, selfishness, greed, hedonism and permissiveness.

The axiom of transitivity of human preferences does not apply to all theoretical orderings or, to real choices which tend to be dynamic.[36] The reality-abstract divide also suggests that preferences

[35] The human brain, like a hard drive, has limited processing capacity. Hence, it cannot process all the information required to have perfect knowledge. I believe everyone from their personal experience can relate to Herbert Simons point. Also, given that many choices are strategic, knowing all alternatives mean knowing all the strategies of other economic agents and, knowing the implications of all possible solutions.

[36] Theoretically, the lexicographic ordering is not continuous or transitive. In reality given a choice between Coca Cola, Pepsi Cola and Fanta, transitivity requires that if an economic actor prefers Coca Cola to Pepsi Cola and, Pepsi Cola

are not complete, consistent or convex. Thus even if human preferences are strictly monotonic, a real-valued utility function that represents the preferences will not exist. And if a real-valued utility function that represents preferences does not exist, then goal equilibrium and market equilibriums consistent with preferences will not exist. This is a *fatal consequence* because the axiomatic approach defended and extensively applied by Debreu and many contributors to modern microeconomics sought to "provide a more secure foundation on which the construction of economics can proceed"(Debreu, 1977). For "the complete specification of assumptions; the exact statement of conclusions, and the riguor of the deduction of an axiomatized study", they exposed the fatal foundations of economics.

The axioms of production and of profit maximization also *illuminate* the nature of production and partly, the nature of the producer as a *homo economicus*. The key axioms of production are (1) production set is non-empty, closed and convex; (2) no production is possible; (3) nothing can be produced from nothing; (4) production is not reversible and (5) and wastes are freely disposable. Assumptions two, three and four make good sense. Part of axiom one also makes some sense: if a resource is available, and if just transformation is possible, then the choice set is non-empty. However, following Robbins, economic phenomena will not exist if there is only one option (recall the conditions for existence include existence of a resource, alternatives and different valuation of alternatives). However, the assumption of convexity does not accord with realities of technical progress which is better represented by concave production sets. A good example is the information and tele-communication (ICT) industry; therewith, technical progress advances so frequently that declining costs and prices is the norm.

Orthodox economists *know* that concave production sets fatally damages equilibrium analysis since it is not compatible with the existence of an optimum. Yet, in a tenacious drive to predetermined theoretical ends, they insist that production sets are convex and make it a core assumption. Pierro Straffa (1927), which

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to Fanta, the agent must prefer Coca Cola to Fanta. In a dynamic setting, preferences may not be static. An individual who prefers exhibited at another time, prefers Coca Cola to Pepsi Cola at time *t* and, Pepsi Cola to Fanta at time *t+1* may prefer Fanta to Coca Cola at time *t+2*.

Professor Bade Onimode – a passionate critic of orthodox economics – made us read in graduate school left an impression on me. For he argued, rightly I believe, that orthodox production theory can stand only if the nature of production is decreasing returns to scale (Straffa, 1926). Substitute the axiom of decreasing returns to scale with constant returns to scale in producer theory and orthodox production theory runs into a problem: either (1) there is no equilibrium or (2) there are "multiple equilibria". None of the two options is good for orthodox economics because it disables the method of comparative statics from generating supply functions. The fatal condition however, is that in the case of *increasing returns to scale*, equilibrium does not exist. Obviously, if equilibrium does not exist, no comparative statics could be conducted; no comparative static analysis implies that no supply function could be derived; and without a supply function; the second leg of orthodox economics cannot exist!

Assumption five, that waste is freely disposable or the axiom of free disposal as it is elegantly referred to was necessary is some proof of existence of general equilibrium (Debreu, 1995). However, the fact that some orthodox economists went so far as to impose the axiom of free disposal to achieve theoretical goals raise fundamental issues. First, because production involves a set of processes (material, monetary, social and political), *the assumption of free disposal potentially endangers the material balance* of the world for it suggests that profit maximizing agents need to freely dispose of production wastes to achieve their goals. It is also formalized in the assumption of zero-externalities required in deriving aggregate production set and aggregate consumption sets which are used to establish existence of general equilibrium. The effects of these types of reasoning on the global environment have become visible in the environmental damages and changes in weather patterns. In Nigeria, it is most visible in the Niger Delta where the cumulative effects of a convergence of motives (private and public rent maximization) are destroying the environment (physical and social) at great costs to human lives.

Second, the assumption of free disposal raises some of the individual-society issues that Frank Knight (1935 reproduced in Hausman, 1994) highlighted. The relevant issue here is; should society accept individual ends and means as the main objectives of social policy even when they conflict with social ends and means? It is appropriate to accept individual ends and means as the goal of social policy if they were compatible with social means and ends. Because economic power and information are not evenly distributed, those with strategic advantages achieve their end at the expense of society and the vulnerable parts of society. As the sub-prime crisis has revealed, both the society and individuals are at risk when states fail to enforce impartial rules that keep economic games from harming society and individuals. In the case of Nigeria, we showed in Garba and Garba (2001) that the failure of social policy complemented a failure of market to cause high and sustained social costs including environmental damages.[37]

The *nature* of markets in orthodox theory is a perfect market. However, a perfect market cannot exist if economic agents are not *homo economicus*, this is also the case if consumer optimum, demand function, producer optimum and supply functions do not exist. The reality is that (1) imperfect markets (monopolies, duopolies, oligopolies and bilateral monopolies) are the norm; (2) the natural tendencies of markets left unchecked is towards less competition and (3) the nature of real markets are continually changing. The first two imply that it is not true that consumers and producers are price takers and second, that markets produce outcomes that are socially optimal. Rather, because asymmetries in economic power and in information are the norm, real market outcomes tend to favour those who possess strategic advantages (market power and the best information). It is not therefore, valid to assert that markets promote efficiency. At best, the assertion is misleading and at worse, dishonest.[38]

It is also not valid to limit markets and economic phenomena to allocation problems given the work of the Austrian school (Thomsen, 1992) that markets are not static allocative devises but dynamic discovery and creative processes. Further, that the entrepreneur therefore, is the appropriate economic agent on the supply-side and not the abstract producer/firm. The cognitive control that orthodoxy continues to have over economics has kept

[37] It is also worth noting as Knight (1935) pointed out that *individual ends and individual means are created historically* in the social process hence, are influenced by social policy.

[38] Theoretically, efficiency requires at least two conditions that (1) *homo economicus* choosing the best alternatives and (2) exchange takes place in perfect markets. Since *homo economicus* hence, perfect markets do not exist, market generated social optimum is a fallacy. Empirically, markets are heterogeneous hence they deliver different degrees of efficiency and, equity. This is why generalizing about market efficiency is dangerous. It is dishonest to argue as some do that the mere existence of markets, even in war situations, is a proof of the validity of orthodox theory.

disequilibrium analysis, the entrepreneur and entrepreneurship out of mainstream economics.

The changes that have taken place in markets make a mockery of orthodox theory which can be likened to *an old antiquated stationary vehicle* overtaken by a fast moving Ferrari sports car. This can be illustrated with the evolution of the mortgage market which is shown in Figure 5 below. The figure shows two market models: the traditional mortgage market model and the sub-prime model. In the traditional model, there are just two players: the home buyer (borrower) and the bank (lender). The bank would normally evaluate the house and the borrower to assess the credit risk, size of loan and payment schedules. When an agreement is reached, the bank will grant the mortgage and the borrower would pay the bank according to the schedule of payments. The size of the mortgage market is limited by the deposits of the bank and monetary policy.

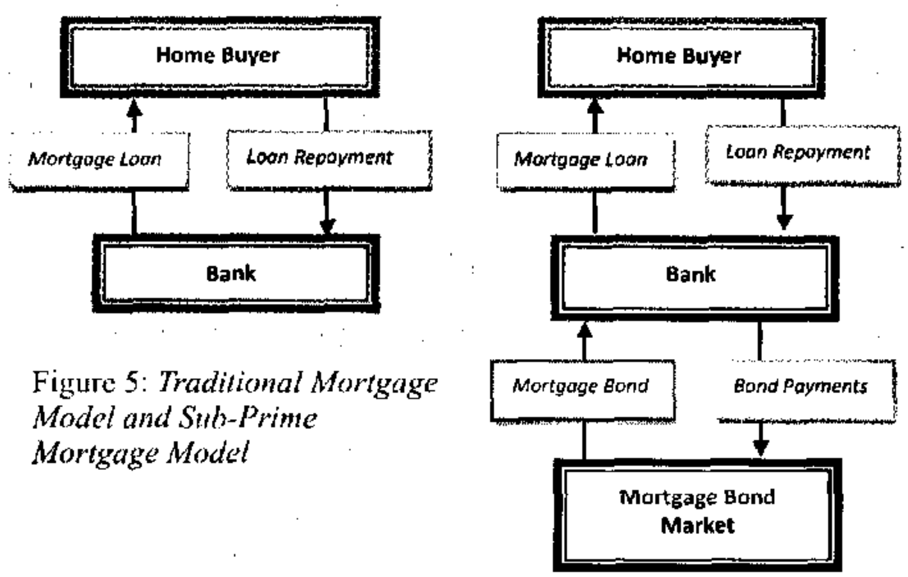

Figure 5: *Traditional Mortgage Model and Sub-Prime Mortgage Model*

To expand the mortgage market and earn more profit, the sub-prime model was developed. In the *sub-prime model*, a new market for mortgage bond is created and three new players (home appraiser, mortgage broker and rating agencies) join the mortgage game as part *a new middle*. Instead of the two-way transaction in the traditional model, there is now a four-way transaction: (1) bank sells mortgage bonds and receives payments; (2) bank offers loans to home buyers assessed by the new middle players (home appraiser and mortgage brokers); (3) the home buyer pays banks through mortgage brokers and (4) bank pays holders of its bonds. The new mortgage bond market stimulates growth in funds available for lending by banks to home buyers[39]. The growth in funds combines with a built-in incentive[40] for the new middle players to sell more mortgages and with greed to increase the risk of financial crisis. In a liberal financial policy environment, the combination of growth in funds, built-in incentive and greed makes a crisis inevitable. With Collateralized Debt Obligations (CDOs), derivatives and future markets; instantaneous financial transactions and complex pricing models; *orthodox economics is out of its depths even as a science of rational greed.*

Finally, the idea that economics is a separate, unified, complete but inexact discipline does not resolve the fundamental flaws in economics. First, the separation of spheres of economics in Mills was not absolute. Mills recognized the need to make "proper allowances for the effects of any impulses of a different description, which can be shown to interfere with the results in any particular case" (Mills, 1836 quoted from Hausman, 1994:54). Mills was convinced for instance, that the basic model must make necessary adjustments to interpolate the principle of population into political economy. Therefore, *Hausman's conclusion that economics should be limited to studying greed using a single unified theory cannot help economics or economists justify its continuing relevance as a viable discipline.* Similarly, to limit progress in economics to only what can be shown to flow "from equilibrium theory and generalizations about beliefs, preferences, and constraints" exemplifies the type of cognitive control that orthodox economics has had on generations of economists and frustrated every effort to improve economic science.

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[39] The loan book now consists of deposits and revenue raised from sale of bonds.
[40] This is because commissions are tied to loan size which is not only tied to eligibility but also, value of houses. The incentive thus exists for brokers to facilitate lending to sub-prime borrowers and for home appraisers to over-value houses.

The Argument

The argument for a new foundation is multi-dimensional yet, organic. The dimensions include purpose, epistemology, metaphysical, ethical, exemplars and structure. The purpose argument shapes the epistemological, metaphysical, ethical and structural arguments. I start with purpose as foundational because I am convinced that every person involved in a cognitive enterprise must ask and honestly answer the question: what is the purpose of what I am doing? For it is purpose that helps a human being to be sure that what he or she is doing has worth or value that justifies the effort. Why does economics exist? What is the value of all the economic books, monographs and papers that we have all written? Is it just for promotion? Is it for winning prizes? Is it to make economics a science so that we can be admitted into the club of scientist? Even this lecture faces the purpose question; what is the reason for it? Without a purpose, a thing has no worth; doing it is meaningless. If the reason for doing a thing is also morally unsound and imprudent, a transformation is required to make it meaningful.

Purpose

I am convinced that the purpose of orthodox economics as ***a study of rational greed*** needs a re-examination because it makes economics truly dismal[41] to all but the greedy. Which other "scientific enterprise", paradigm/disciplinary matrices, research programme or field of study will limit itself to a study of greedy motives or intentions? This re-examination is even more pertinent when (1) the motives and intentions of human beings are not limited to greed; (2) time is short and resources are limited hence should not be used immorally and unwisely; (3) there is a great likelihood that greed will destroy the greedy (at least morally) and undermine social cohesion; and (4) the idolization of greed is more likely to make more people including economists greedy and self-loving. The trade-offs and opportunity costs of greed are of such magnitude as to

[41]**Thomas Carlyle** (1795 - 1881) is credited with using the word dismal in reference to Malthusian theory of population and the phrase dismal science to describe political economy in his tract *Occasional Discourse on the Negro Question* in which he advocated slavery. The context for the use of the word dismal is obviously different.

warrant a re-examination of greed. Besides, how can society trust greedy and self-loving economists to objectively think about and produce ideas and advice that serve the common good since rationality of greed demands that the economist places his interests above those of society?

The ones who *most* benefit from a cognitive enterprise devoted to analysis of rational greed are, the greedy economic actors that possess or acquire strategic advantages at individual, national and global levels. An over-riding interest on the rationality of greed therefore, makes economics a tool for promoting greed and, the interests of the greedy. I found it strange, looking back at graduate school the excitement in orthodoxy with hedonistic functions. I contrasted that enthusiasm with the words of the King Solomon famed for his wisdom:

> Whoever loves money will never be satisfied with money. Whoever loves wealth will never be satisfied with more income. Even this is pointless (Ecclesiastes 5:10).

Then I see in the axiom of *strict monotonicity* in consumer theory, a blissful formalization of a *curse of non-contentment* into the core of economics. And I wondered and still wonder; how could economists not know that a life that lacks contentment about material possession is *a miserable life of endless wanting*? The greater tragedy is that without this curse, the fundamental pillars of orthodoxy (demand and supply) crumbles.[42] Orthodox theory needs the curse of non-contentment to stand! The question is can a bad tree bring up good fruit?

The idea that orthodox economics is an intellectual enterprise that serves the interests of greedy and hedonistic

[42] First, the proof of the existence of real valued ordinal utility function that represents binary relation "at least as good as" requires complete, transitive, continuous and strictly monotonic (the curse) preferences. Without strict monotonicity, the proof fails and economics loses utility functions and indifference maps which are key devices for analysis of consumer equilibrium and for generating demand functions. Walras' law that total expenditure equals total sales which is used to show that at equilibrium excess demand is less than or equal to zero and prices greater than or equal to zero depends on the axiom of strict convexity or the *curse of non-contentment*.

capitalists is well established in Marxist and radical literature. Leading economists in Nigeria such as Eskor Toyo (Toyo, 2001), Bade Onimode (Onimode, 1995) and Mike Kwanashie (Kwanashie, 2007) have consistently argued that orthodox economics serves the interests of capitalists. Economic history of the last century strongly supports the thesis that *economics serves the interests of the rich people and nations against poor people and disadvantaged nations*. For it was *orthodox economics that provided the intellectual justification for the thesis that income inequality is good for growth*: the rich save, invest and generate growth; the poor consume, do not save, hence retard growth. It was also orthodox economists that provided the intellectual support for the global industry of development finance: vicious cycle hypothesis; the gap models; big push; balanced growth; stages of growth etc. When inequalities began to be observed in the developing economies; the inverted-U hypothesis was put forward: *in the early stage of growth inequality rises, peaks as growth progresses before declining*. The message is that inequality is the price of growth. Therefore, put up with it and hope for when you grow enough for it to decline. This idea ran counter to Keynes *General Theory* which disproved the thesis that growth depended on savings. Yet, orthodoxy held tenaciously to the efficiency-equity trade-off.

It was orthodox economics/economists that offered intellectual foundations for all the phases of financial products invented by the key players in the development finance industry (see Table 1). These include the idea that developing countries need foreign loans to grow because of the vicious cycle of poverty and need to get prices right. Developing countries also need to get policies right and implement deflationary policies to restore growth; they need states; need poverty strategies and should borrow up to some dubious thresholds.

The role of orthodox economics in precipitating and sustaining economic and financial crisis is implicit in Keynes *General Theory*. Indeed President D. D. Roosevelt had to discard the advice of orthodox economists to design and implement the "New Deal" which helped the United States recover from the Great Depression. His defiance was rooted in his belief that economic laws were made by men not by nature and, he could not place the ideas of men above the responsibility to do the right thing while people were dying and the nation was sinking into despair. In his first inaugural address on March 4, 1933, President Roosevelt explained his core beliefs thus:

> *Happiness lies not in the mere possession of money*; it lies in the joy of achievement, in the thrill of creative effort. *The joy and moral stimulation of work no longer must be forgotten in the mad chase of evanescent profits.* These dark days will be worth all they cost us if they teach us that our true destiny is not to be ministered unto but to minister to ourselves and to our fellow men. *Recognition of the falsity of material wealth as the standard of success goes hand in hand with the abandonment of the false belief that public office and high political position are to be valued only by the standards of pride of place and personal profit*; and there must be an end to a conduct in banking and in business which too often has given to a sacred trust the likeness of callous and selfish wrongdoing. Small wonder that confidence languishes, for it thrives only on honesty, on honour, on the sacredness of obligations, on faithful protection, on unselfish performance; without them it cannot live.[9] (The italics are for emphasis)

More recently, President Bush and President Obama ignored the prating of orthodox economists to bail out banks and to stimulate their economies out of the hole that unbridled liberalism had plunged it. Indeed, all who helped to impose deflationary policies in Africa, Latin America and South Asia in the 1980s and in Greece, Ireland, Portugal and Spain in the second decade of the 21st Century acted contrary to orthodox prescriptions in 2007-08. We have documented in some of the globalization and conflict studies how orthodox ideas endanger global financial and economic stability (Garba and Garba, 2001, 2004; Garba, 2005; Garba, Usman and Sanusi, 2008) hence, global wellbeing, peace and security.

Clearly, the purpose of economics is not compatible with stable social orders at national and at global levels. I do not deny the material progress that humanity has witnessed in the last two centuries. The point for me is, at what cost in human lives and misery?[43] Along the business cycles – recovery, boom, recession and depression – who gains and who loses? Are wages, prices, returns equilibrating? More importantly, does life consist of material possessions? Do material possessions give us peace, virtues, love, faith and hope that makes life worth living and which build strong bonds of relations and social cohesiveness?

Epistemological Commitments

The flaws in the epistemological commitment of economics to positivism are already well documented in Garba (2003) and the references. It is clear in Mills (1836; reproduced in Hausman, 1994) that a desire to make economics a science was why Mills believed that thinking from hypothesis was the best way and why he created in his mind, an economic realm for studying the passion for wealth accumulation even when he believed it was absurd to think that way. It is also clear that Bentham's "felicity calculations" influenced Jevons to believe that the true science of political economy flow from emotions of "pleasure and pain".

In the time since Mills and Jevons, things have changed and so has what we know. We now know for instance, that economic science cannot be limited to thinking from hypothesis and that the emotions of pleasure and pain are not measurable and so could not be formalized as Jevons believed. In addition, Thomas Kuhn's *Theory of Scientific Revolutions* in its revelation that sciences solve puzzles not test theories, has made puzzle and problem solving the essence of a science. Hence, if economists want their discipline to be a true science, they must solve puzzles; and the global financial and economic crisis has thrown up many problems that need urgent solutions.

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[43]How many people had to be slaves, how many had to die crossing the Atlantic, in slavery and in attempts to escape from slavery to build the US? How many are sweating right now in sweatshops, in slavery and in slave-like production processes to generate profit for greedy capitalists? How many have lost their homes and jobs and dignity as a result of liberal policies and transfer of business cycle costs to disadvantaged groups? Before we celebrate the material progress let us adjust for the human and social costs. Also, we should adjust for the progressive loss of value for humans either through willful destruction of the environment or through social policy that transfer wealth disproportionately to the rich and compel many to dismal existence.

Though this period of great economic instabilities offers opportunities for frontier extending work, economists cannot solve the problems unless they free themselves from the cognitive bondage of orthodoxy. For I am convinced as Keynes was, that success in economics as a cognitive enterprise requires economists to constantly correct their judgements of economists "by an intimate and messy acquaintance with the facts to which (economic) models have to be applied." Herbert Simons made a similar case in his suggestions of a "principle of continuity of approximations" as a replacement for Friedman's principle of unreality.

Metaphysical Commitments

The key metaphysical commitments are about the nature of human beings, the human environment; economic phenomena and markets. The most crucial of course are the metaphysics of human beings and, their environment. The conceptual analysis of homo economicus implies that the homo economicus is an individuated, self-loving, hedonistic (prefers pleasure to pain and an optimizer) being who has free will and perfect knowledge that he or she employs to achieve the hedonistic goals (maximum pleasure, maximum profit; maximum rent and maximum levels of exploitation as the case may be). From a metaphysical standpoint, homo economicus obviously fails the existence question: *does the homo economicus exist*? Real humans have a diversity of motives and intentions; act irrationally, are inefficient, select adversely and sometimes are helped to choose because they are unable to rank alternatives or choose a satisfactory option.[44]

A reflection on metaphysics reveals that in categories of things that exist, humans are categorized as substance[45]; spatiotemporal (entities that occupy certain location in space and have own history) and contingent beings (beings that could fail to exist) that have essential nature. Human beings are obviously spatiotemporal: they exist in time and space both of which are

[44] Even after due research about laptops and about reviews, before buying this laptop I am using to write this inaugural, I have found several defects that convinces me that I did not make the best choice given available alternatives.

[45] Substance exists by itself and independent of all else. For example, in a red ball, the ball is the substance while the red is not (it is an accident).

insignificant relative to their complement sets. It is also true that human beings have essential qualities that make them human: e.g., they are mammals; they are social beings, etc. They also have accidental qualities; physical attributes like skin, eye and hair color, tall, short, greed, passion for something, etc. Greed is not an essential nature of man; it is an accidental quality. It is therefore, a major flaw to mistake an accidental quality for the true nature of man.

It is well documented that John Stuart Mills was opposed to gender inequality or racial explanations of the circumstances of people. He believed that human beings shared the same essential nature and strongly supported the anti-slavery movement in the United Kingdom. It is possible that his preference for a homogenizing concept of human beings was consistent with his views about the essential equality of human beings. The problem however, was that he chose a dismal stereotype of human beings as passionate about wealth accumulation. Subsequent followers, made the transition from passionate about wealth accumulation to rational hedonism (utility maximization and profit maximization) following his example to exclude all motives and intentions other than the motives of wealth accumulation.

More than 2000 years before Mills, Aristotle's stereotypes of humans comprised three categories: "truth seeking", "esteem seeking" and "material seeking". In Aristotle stereotype, the truth seekers were the best while the material seekers the worst types of human beings. Adam Smith's stereotype of humans in his *Theory of Moral Sentiments* also differed from Mills's. Adam Smith's stereotype was that humans had a tendency to empathize:

> How selfish so ever man may be supposed, there are evidently some principles in his nature, which interest him in the fortune of others, and render their happiness necessary to him, though he derives nothing from it except the pleasure of seeing it. Of this kind is pity or compassion . . . for this sentiment, like all the other original passions of human nature, is by no means confined to the virtuous or the humane, though they perhaps may feel it with most exquisite sensibility, the greatest ruffian, the most hardened

violator of society, is not altogether without it. (Adam Smith, 1759).[46]

The *dismal stereotyping* of human beings in economics and the rationalization of the stereotype may have made economics a self-fulfilling cognitive enterprise. Studies have found that economics students are more selfish than their counterparts in American Universities (Bauman & Rose, 2009); economic graduates are more likely to free ride(Marwell & Ames, 1981); defect in prisoner's dilemma games(Frank, Gilovich, & Regan, 1993) and take bribes (Frank & Schulze, 2000). If economists and their students imbibe what they hold as core, what is the guarantee that their learning and their doing of economics would not be simply a means to satisfy their own rational greed? And if that is the case, how can economics be a discipline that helps individuals, social organizations, governments and multilateral actors make choices that promote the commonwealth of humanity? How can society guarantee that economists and students of economics will acquire values of honesty, consistency, and respect for data and problem solving in their doing and learning economics? I am convinced that a significant number of economics students and most practicing orthodox economists today either do not know; do not care to know or do not share or live by the core values of Adam Smith, John Stuart Mills[47] or Williams Stanley Jevons.[48] The studies (Marwell & Ames, 1981; Gilovich, & Regan, 1993; Frank & Schulze, 2000 and Bauman & Rose, 2009) indicate that economics has significant *indoctrination effects* on graduates of economics at least in the United States.

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[46]Smith suggested that God and not man cares for the universal happiness of all rational and sensible beings and that man has been limited to caring for his own happiness and the happiness of his family, his friends and his country. Even this does not justify the dismal stereotype of rational greed.

[47] John Stuart Mills support for the anti-slavery movements and women's right is well documented. His support for the anti-slavery movement incurred the wrath of Thomas Carlyle who in his bigotry attacked Mills and economics for daring to question the idea that all humans have the same essential nature.

[48] Mark Blaug's account said of Jevons; "His letter to his family in those early years already reveal a keen interest in social questions and a profound sense of mission in his life". Also, that in the *State in Relation to Labour* he roundly condemned the maxim of *laissez faire*.

The point therefore, is that the dismal stereotype of human beings makes economics dismal and ensures that economics promotes the interests of the strategically advantaged greedy individuals and organizations; it has the potential to corrupt the values of economists. We have seen evidence of that in the rise of "Oligoths" in Russia; and in Nigeria, the effects on public policies and the consequences. Prior to President Putin's assumption of office in Russia, greed had decimated a once powerful nation to a point where nuclear scientists had to accept security guard duties to feed their families. In one sad situation in Russia, a man killed another who stole from his potato farm. As if that was not bad enough, the killer's neighbours justified the act: he was protecting his family from starvation!

It is true as Robbins (1935) held that *time is short* and *nature niggardly*. However, human beings are part of an organic system and their interaction with their environment is not solely to source for resources to satisfy their greed. Aristotle and the Scholastics held that resources are not meant to satisfy human greed but human needs. Satisfying needs will (1) minimize inequities; reduce considerably the intensity of scarcity and (2) enhance sustainability. A needs-resources relation will make the world less unequal because the needs-resources tension is significantly lower than the wants-resources tension. There is therefore, a greater likelihood of much less competitive struggle by humans for resources. And because competitive struggle cause conflict along social tension points, a needs-resources relational world is more likely to generate considerably less frequent and less intense conflict. Also, human beings are more likely to have more time for more spiritually uplifting activities hence, less demand to fill the emptiness that a life of rational greed creates in humans. The need to manage human proclivities by letting them tyrannize over their bank accounts will be considerably limited and help to mitigate the great danger of the fact that the *tyrannies of greed are cancerous and fatal*. In contrast, the idolization of rational greed has widened inequities, tightened intensity of scarcity and has greatly depleted natural resources, the ozone layer and endangered many that have become unfortunate victims of the fury of nature.

Institutional thought has enlightened us about how humans in their interaction with each other and with their environment build institutions that embed incentives. The institutions that strategically advantaged rationally greedy persons and organizations build serve their interests. This was visible in the institutions colonial authorities built in Africa, Latin America, Middle East and Asia. It is also visible in the global financial and trading architecture that the US led its allies to build after the Second World War and it is visible in the Western banking practices that encourage dictators to keep wealth stolen from their nations in Western banks and to appropriate the funds when dictators die[49]. Clearly, rational greed is devoid of wisdom and morality and disables nations of the world from working together to build global organizations and institutions on global ethical standards in the mould of Adam Smith's *Theory of Moral Sentiments.*

I have already argued that the *nature* of markets in orthodox theory is unreal. Real or concrete markets and real economic actors are imperfect. Also, markets are dynamic processes. Hence, the idea of market equilibrium as a norm is a fallacy.[50] I know that the Neo-Keynesians have sought to integrate market imperfections, price and wage rigidities in their analysis yet; they remain under the cognitive control of orthodoxy. The Austrians have recognized that equilibrium is a misnomer because markets are discovery and creative processes. Still, they too have found it difficult to mount a successful challenge to free economic thought from its cognitive bondage.

Two basic principles in Robbins conceptualization will survive and be foundational parts of any new economics. These are the *principle of trade-off* and the *principle of opportunity costs.* The principle of trade-off applies to both needs-resource and wants-resource concepts of scarcity. In both cases, the use of resources for one end means it is not available for another. The principle of opportunity costs implies that there is a next best alternative that we are foregoing in any application of resources. Hence, the true cost of the choice, is what we cannot have. Though economics limits the applications of the principles to material choices in consumer and

[49] Key examples are Nigeria's Sani Abacha and Zaire's Mobutu Sese Seko.

[50] To confirm that markets are dynamic processes, one just needs to go online and follow trade in financial instruments in the course of a day. Alternatively, one could plot macroeconomic data on product, labour and housing markets. In both cases, one will observe movements and different degrees of volatility.

producer theories, the principles also apply to non-material choices. They apply for instance, to purpose of economics and to its commitments (epistemological, metaphysical and ethical). A commitment to serve the interests of greedy rationalists implies that economics is trading-off the interests of the human commonwealth for social cohesion. For economics cannot serve greedy rationalists and serve the society at the same time. In its revealed choice, economics is also forgoing the empowerment of human beings to make morally sound and wise choices. Therefore, the true cost of the chosen purpose of economics is the foregone capacity of humans to make morally sound and wise choices and the consequences of such failures. Similar analysis could be made for the commitments (epistemological, metaphysical and ethical).

Ethical Commitments: Values

There are at least two levels of flaws. The first flaw is of course, that vices (self-love, materialism, hedonism, vanity, etc) are the foundation of orthodox economics.[51] Apart from making economics dismal, the vices lead to *spiritual deficits*. The spiritual deficits manifests for instance, in the perceptions of property and its use. The view that property should be privately owned is axiomatic in orthodox economics. The ancient debates between Plato and Aristole and the views of the Scholastic indicate that the orthodox view is unique and consistent with the orthodox stereotypes of humans as self-loving hedonists.

In the ancient debate, Plato and Aristotle held opposing views. Plato favoured *communal ownership* because in his ideal political system led by Philosopher Kings, ownership of private property will distract them. On the other hand, Aristotle favoured *private ownership* because he believed humans can more efficiently manage what they own. In addition, private ownership enables human beings to engage in philanthropy. Nevertheless, Aristotle advocated restrictions on the accumulation of private property and

[51] *Some economists have sought to model altruism to generate altruistic* preferences and equilibrium (see for example, Frank, 2003). The problem however, is that it is ad hoc and does not sit well with the structure of orthodox economics. Because vices are foundational, changing them will produce a new house.

decried intrinsic motives that predispose some humans to seek wealth and esteem instead of truth. The Scholastics such as St Thomas Aquinas justified private ownership along Aristotelian lines but added a *spiritual dimension*: private property is held in trust for God and holders must be willing to use property in godly ways including sharing with those who do not have. The uniqueness of the orthodox view is that while it agrees with Aristotle and the Scholastics that private ownership of property is the norm, it does not accept Aristotle's *ethical restrictions* on accumulation or the Scholastic *spiritual restrictions* on the use of private property.

The orthodox view or the conventional wisdom about private property raises prudential questions for humanity. What is wise, about a convention that promotes the worse possible human stereotypes and separates itself from sound morality and wisdom?"A conventional wisdom that separates itself from sound morals and wisdom is more appropriately, "conventional foolishness". For in the words of King Solomon, "Wisdom is in every thought of intelligent people; fools know nothing about wisdom" (Proverb 14:33) and "It is better -much better to have wisdom and knowledge than gold and silver" (Proverb 16:16).

The second flaw is the inherent *ethical bias*. John Stuart Mills, William Stanley Jevons and Hausman in their consensus on a separate realm for economics shut-out wisdom and moral questions from economics. Yet, the literature on ethics makes it clear that every choice raises three questions about efficiency, morality and wisdom: Is the choice of X efficient? Is the choice of X prudent? Is the choice of X right? While a morally sound choice is not unwise, an efficient choice may be foolish and unwise. For instance, technology may enhance the efficiency in the drilling of oil and gas resources; yet efficient depletion of the resources and of the ozone layer that follows make the efficient depletion foolish and immoral because it imperils the sustainability of humanity. Similarly, when global central banks engage in printing of money to promote the competitiveness of their economies, a fallacy of composition situation arises that makes their actions unwise. Their actions may also lead to asset price bubbles that will in the future undermine economic growth, employment and wellbeing when the bubble bursts. The printing of money to get out of recession may also be immoral because the printing of money by central banks reduces the value of money and amounts to regressive tax. In the case of the US which has the global currency (US$), printing of money and using it to buy financial assets is immoral because its policies adversely affect many nations and many people. It is also unwise because it may trigger currency wars and asset price bubbles that endanger its medium term prospects. Clearly, solving the national and global (economic, social and political) crisis requires wise and morally sound choices and actions.

At the 2012 World Economic Forum's Global Agenda Conference in Dubai, two themes were recurrent: *co-operation* and *coordination*. There was general agreement on the thesis: *co-operations and coordination are necessary to solve the grand problems of the world* (low growth, record unemployment, inequalities, poverty and environmental problems).[52] However, as Professor Garba pointed out in her presentations during and after the meeting (1) where will the people with tendencies to cooperate and accept to be coordinated for the good of the commonwealth come from: universities, government or the private sector? (2) are our universities training people to compete to achieve private goals or to cooperate and to submit to coordination towards the achievement of the common good?

Exemplars

The exemplars for economics in terms of epistemological and metaphysical commitments are natural science, particularly physics. Both Mills and Robbins were inspired by physics: movement of planets (Mills) and mechanics (Robbins). The problem, as noted by those who preferred biology as an exemplar is that physical objects are nothing like human beings. Economics would therefore need better exemplars than physics and mathematics which have considerably influenced the construction of the modern version of orthodox theory.

[52] Game Theory has shown that competitive outcomes may generate Nash Equilibriums that have lower values of the game than cooperative solutions. In other words, cooperation generates better outcomes than competition. This is easily shown in the case of the Prisoner's Dilemma where because of a lack of trust and selfishness, the criminals end up with lengthier sentences.

Structure

The implications of the flaws in purpose and in commitment (epistemological, metaphysical and ethical) on validity of orthodox economics are easy to see from Figure 2. With such flaws in the foundation (value system and world view), conceptual system and theorizing system; the hierarchy of theories stands on fallen legs. More importantly, they stand on moral and spiritual deficits that corrupt orthodox economics and render it *unable to help humanity to make wise, morally sound and effective choices* at all levels of social formation or to enthrone justice and fairness in the economic system.

The moral and spiritual deficits are noticed in the spread and deepening of rational greed in strategically advantaged economic agents and, the exploitation of advantages for hedonistic ends regardless of human and social costs. The moral and spiritual deficits have also influenced the transformation of the modern business to a profit making machine which treats workers and managers as replaceable parts(Schwab, 2010, P. K. Garba, 2012) and in the process destroying the sense of community that makes businesses serve the good of the commonwealth. Increasingly, material progress that rational greed produces comes at great costs to humanity and to its environment. Economics will better serve humanity without moral and spiritual deficits as its foundation. And without its moral and spiritual defects, a new economics will emerge.

Essentials of a New Foundation

The essentials of a new foundation are: a new purpose; new epistemological commitments; new metaphysical commitments; new ethical commitments and a new structure. The specifics of the new purpose, epistemological commitments; metaphysical commitments; ethical commitments and structure should emerge through purposeful discussions among economists and between economists and non-economists; for economics is too important to be left to economics alone. What I offer here, are my preliminary views.

Purpose

The basic question is; what *should* be the purpose of economics? The question is not a positive question and therefore cannot have a positive answer. Because purpose is a *value-laden* concept; it may not be easily settled by appeal to facts. Often in class I ask, both undergraduate and post graduate students why they are learning economics? The answers are usually diverse: I want to acquire knowledge; I want to serve my community; I want to improve my chances in the job market; and so on. Of course, there are also those who study economics as acts of fate. Whatever, may be the entry point to economics, the purpose of economics must be clear and virtuous. Economists should avoid the dishonesty about being pure spectators that are interested purely in seeing, thinking and understanding economic phenomena through "objective" and factual analysis of social relations. The truth is that Adam Smith, Mills, Jevons; Keynes; Friedman; Stiglitz, Eskor Toyo, Aboyade, Kayode, Onimode, Oyejide, Olofin, Kwanashie, Attah, Ojowu, P. K. Garba and indeed, most if not all, economists were key participants in social phenomena. Their interests were not limited to seeing, thinking and understanding economic phenomena, they were deeply involved in social actions and changes they believe in. To all of them, *economics was a means not an end*. Therefore, *it is the end of economics that defines its purpose*.

I therefore suggest a clear purpose for economics, to empower human beings (in households, businesses, social organizations, governments, bilateral and multilateral organizations) to make *morally sound* and *wise decisions* on all matters and relations that involves the use of resources at all times.

Morally unsound and unwise decisions are plagues on the use of resources and on the social, economic and political relationships that humans have developed to support their use of resources. The Great Depression, the episodes of financial and economic crisis after the end of the Gold Standard; the external debt crisis of the 1980s; the currency crisis and Japanese property bubble of the 1990s; the dotcom bubble of 2000; the sub-prime mortgage generated crisis of 2007-08 and the current crisis in the Euro zone are too costly in terms of human lives; misery; social and political instability.

Indeed, if economists are made to pay for the consequences of their work, there is a great likelihood that few can still be eligible or, be willing to practice orthodox economics today. I have argued before, that economists should be held accountable for the advice they give and which diligent implementation leads to major social costs. I am convinced for instance that were that to be the case, many who arrogantly impose corrupt and external interest serving policies in the developing world in the 1980s would have ceased to practice economics. The main point is, economists cannot analyze human behaviour in terms of constraints yet practice economics without constraints. This unconstrained practice of economics partly explains why theories that fail empirically thrive in the abstract and continue to influence the real economics even at great and rising human costs.

I believe medicine offers economics some exemplars in this case. Practitioners prior to practice swear to the Hippocratic Oath:

> to be *loyal* to the Profession of Medicine; to be *just* and *generous* to its members; to lead lives and practice medicine in *uprightness* and *honour*; to practice only for the *good* of the sick to the utmost of power; to hold self far aloof from *wrong*, from *corruption*, from the *tempting* of others to *vice*; to exercise your art *solely for the cure of* your patients, to give no drug, perform no operation, for a *criminal purpose*; to treat patients with inviolable *confidentiality* (summarized from Microsoft ® Encarta ® 2009)[53]

The purpose of the oath is to upgrade the ethical standards of medicine to the highest human standards to protect the patients and to compel practitioners to practice by the standards of medicine. The central principle for economics is the need for clarity about core values of economic practice and institutionalization of accountability.

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[53]"Hippocratic Oath." Microsoft® Encarta® 2009 [DVD]. Redmond, WA: Microsoft Corporation, 2008.
Microsoft ® Encarta ® 2009. © 1993-2008 Microsoft Corporation. All rights reserved.

Epistemological Commitments

Two key changes are required. The first is the shift away from positivism which makes claims about human nature, environment, phenomena and markets irrelevant. This does not mean that economists will no longer apply deduction to axioms/hypothesis. But that axioms/hypothesis must be grounded in stylized facts of observed economic phenomena, not a product of someone's mind and argument about some scientific standard. This would avoid the type of tautologies and the employment of unreal claims that theoreticians now make to arrive at ends predetermined by the unreal assumptions.

The second epistemic issue concerns the inclusion of faith in economic practice. It is not valid to propose that faith does not play an important role in the economic decisions that human beings make. The Scholastic's argument against usury and their ideas about price, property and consumption are anchored in Christian Doctrines. Similarly, the idea of non-interest banking a key principle of Islamic banking is anchored in faith. To exclude faith in understanding behaviour is a fundamental flaw for the simple reason that for most people, *their reasoning and sense perceptions are not independent of faith*. And that is true even for "great economists" and "great philosophers". I have argued earlier that Bertrand Russell's view of theology and its relationship to science and philosophy was influenced by his faith (for a lack of faith is faith). The same could be shown for most active players in a diverse set of cognitive enterprises.

Faith is defined as "a trusting belief in a *transcendent reality*, or else in a *Supreme Divine Being*" Further, that like trust, faith "involves a concept of future events or outcomes, and is used conversely for a *belief* "not resting on logical proof or material evidence." The proof of faith is not the issue: the issue is that faith influences reason, senses and behaviour and that if we want to understand behaviour, we need to understand how faith influences behaviour. An argument I offered at a seminar in 2009 is:

> Models of human nature are foundational to economics.
> Faith is foundational to human nature.
> ---
> Therefore, faith is foundational to economics

This avoids the debates about epistemic validity of faith.[54] Analyzing the possible effects of faith on human behaviour about the use of resources should acknowledge differences in *purpose* and differences in *time horizons* considered in decision making. If a person believes that he exists to fulfill a transcendent purpose, then his behaviour will be influenced by that belief. Property rights, prices (just and unjust), usury (permissible/non permissible); investment options (permissible/non permissible); consumption (permissible/non permissible); institutions; roles of government; individual-state relations; inter-personal relations are subject to influences of faith. These issues may also, be influenced by faith in the afterlife. An atheist that does not believe in an afterlife may have different values from a person that believes in an afterlife that may affect attitude to wealth; and all the elements in the set of issues subject to the influences of faith.

Therefore, *means*, *ends*, the *relationships* between the *values* embedded in the relationships are at the least, possibly influenced by faith. In other words the choice set, preferences and choice are subject to the influences of faith. Even on that score, faith ought to be part of our understanding of human behaviour. For to rule out faith *abinitio*, and focus only on what we *see* and *what is logical* to us is to overstate our sensory and mental abilities and to enthrone ignorance because what we *can* see and what our minds on their own *can* conceive are insignificant relative to what we cannot see or conceive in our minds. We must therefore, give room to intuitions and to revelations at least, as possible influences on human behaviour.

Metaphysical Commitments

Given that the purpose of economics is to empower human beings (in households, businesses, social organizations, governments, bilateral and multilateral organizations) to make *morally sound* and *wise decisions* on all matters and relations that

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[54]*Logical positivism* holds that "any belief held by faith is invalid" because it cannot be tested. *Fideism* holds that "belief can only arise from faith - reason and evidence cannot lead to truth" while "*foundationalist*" argue that "beliefs rest ultimately on beliefs accepted by faith" and C. S. Lewis holds that "faith is merely the virtue by which we hold to our reasoned ideas, despite moods to the contrary."

involves the use of resources at all times, then the metaphysical commitments of economics must derive from this purpose. The key consistency issues are three-fold: categories (human beings, environment, economic phenomena and institutions); basic relations and ontological approaches.

First of the categories is human nature. Human beings are not concepts. They are real and their general nature is fairly known. Therefore, we do not need to either assume or assert but to study. Given that human beings have an *essential nature* (attributes that make humans human) and *accidental attributes* (non essential attributes such as skin color, gender, class, or nationality); what is needed is to understand how attributes relate dynamically and how together they influence human behaviour. Second, the environment also is real. It is known that the physical environment is an organic system with humans as a part of it. Also, that the physical environment facilitates the material process of production, consumption, exchange, distribution and waste disposal. Knowing how environmental balance is influenced by economic phenomena is important and should be integral to economics rather than an interpolation. Three, the Robbins view about economic phenomena is right in part. It should be modified (1) to integrate environmental sustainability in economic analysis; (2) to recognize the two notions of scarcity: that is, scarcity as a *needs-resource gap* and scarcity as a *wants-resource gap* and (3) to include economic activities that are not traded. Integrating environmental sustainability ensures that economic behaviour is compatible with environmental sustainability. As a result, orthodox assumptions such as free disposal will not be part of economic analysis. Also, the demands for environmental sustainability will factor into production and consumption decisions as binding constraints. The two scarcity concepts have different implications for economic analysis.

A needs-resource gap is smaller than a wants-resource gap. Therefore, the former is likely to generate less uncertainty, anxieties and less competition. On the other hand, a *wants-resource gap* concept of scarcity is likely to generate greater uncertainty, anxiety, competition, less peace and orderliness in the social system. Professor Kassey Garba (Garba, 2013) shared a story that is illustrative. As part of a group that used a Catholic facility for a programme, she requested the cooks in the canteen to serve her group so that the food would go round. The cooks were surprised, for they said the food was more than enough to go round. The cooks further explained that when the Catholic nuns take their food under similar arrangements, what each person serves on her plate was not influenced by their wants, but by the need for the food to go round."

Prof Femi Odekunle used an anecdote to make similar points: Suppose there are two societies A and B each with 10 people and an endowment of N10. In society A, two persons appropriate ₦6, three persons appropriate ₦3 leaving five persons to struggle for ₦1. In society B, the rule is that no one receives more than ₦2 and no one receives less than ₦0.5. In society B, there is greater commitment to order, progress and peace because they all have a stake in the community. In society A, there is less commitment to order, progress and peace and a greater chance of insecurity and conflict.

A more general concept of economic phenomena will remove the false divide between reproduction and production. It is a false divide because resources are used to create values in both reproduction and production. It is the insistence economics to restrict the domain to traded activities that excludes reproduction. In reality, the two spheres are inter-dependent: the more time a woman uses in reproductive activities (cooking, sweating, spending time with children, etc), the less time she has for production and vice versa. The new foundation therefore, will unify analysis of production with that of reproduction. Unifying production and reproduction analysis will require a reexamination of value theory to make it compatible with reproduction also, with the purpose of economics as an enterprise for empowering economic agents to make morally sound and wise decisions and to take morally sound and wise actions.

The basic relations of interests will include *essential nature, accidental attributes and behaviour*; *needs-resources*; *wants-resources*; relations between economic actors in households; in the formal economy; in the informal economy; relations between formal and informal activities; relations between real and financial economies; individual-society relations; individual-government relations; and all sets of principal-agents relations; relations between nations; and so on.

Besides positivism, all other ontological approaches, particularly empiricism and realism, will be useful. Making the purpose of economics clear will turn focus of economics to intrinsic and extrinsic motives, expectations, risks and uncertainties. Economists should also include in their analysis of choice, changes in the accidental attributes of human beings as well as changes in the environment, in economic phenomena, in institutions and in relations. The desire for parsimony and simplicity must be weighed against (1) the heterogeneity of human beings, environment, economic phenomena, institutions and relations and (2) change. This is why it is necessary that economists engage in continuous monitoring of changes in human accidental attributes including motives, expectations and psychological uncertainties as well as in the environment (physical and social), economic phenomena, institutions and relations locally, nationally and globally.

Ethical Commitments: Values

The fundamental ethical commitment is a commitment to empowering human beings everywhere to make morally sound and wise decisions and to take morally sound and wise actions. This ethical commitment corrects key deficits (moral and spiritual) in orthodox economics. It would also help to correct a third important deficit that is, the institutional deficit.

The ethical commitment also has implications for economic training and economic practice. Learning economics will be more than a cognitive exercise but, principally about acquiring wisdom and understanding. I believe that John Bascom (1877) expresses the point clearly in his definition of wisdom:

> We mean by wisdom the knowledge which gives a *mastery over physical forces*, the *insight which discloses the constructive laws of mind and society*, and that *living obedience* which puts itself in perfect harmony with this innermost truth of things. This wisdom is for men and for States the principal thing. Accepting the proposition, Wisdom is the principal thing, we accept the corollary, and would obey the injunction: Get wisdom; and with all thy getting, get understanding. The applicability of this precept to us in our collective capacity, the State, suggests our theme (Bascom, 1877).

The implication is that learning involves acquiring *knowledge*, *insight* and *character*. In other words, the student of economics must be the antithesis of the *homo economicus* in values. When students acquire knowledge, insight and character, they would be more likely to deploy knowledge wisely in defense of the commonwealth than in the selfish acquisition of things. They will then be more disposed to cooperating to solve concrete economic problems. They would also, be able to help restore the social order that greed is systematically destroying globally and to steer the world away from crisis created by an endless cycle of ethical decay and "broken values".

Structure

What structure of economics is suggested? At this point, only a simple structure is presented. The structure is shown in

Figure 6. It has three hierarchies: *foundation*, which consists of the purpose and the *commitments* (epistemology, metaphysics and ethical); the *dynamic economic space* (environment and economic phenomena) and *purpose driven output* (economic theories and economic advice). This structure requires economists to construct purpose driven theories: theories that generate morally sound and wise economic advice. Constructing purpose driven theories demands continuous interactions between *purpose-driven* economists with the dynamic economic space. At the core of the analysis are the two Robbins' principles: *trade-off* and *opportunity costs*. The third core principle will be the *incentive principle*. However, unlike in orthodoxy, which limits incentive to prices and motivation to greed, the understanding of incentive will be deeper, broader and observed not asserted. Similarly, the motivation will be established not asserted.

The next phase of my research will focus on building such purpose driven economic theories that could inform morally sound and wise choices.

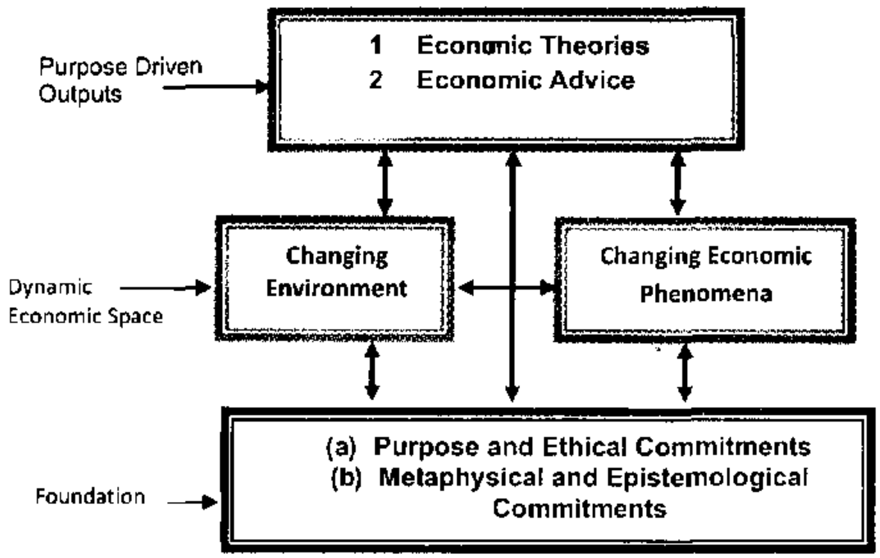

Figure 6: *New Economics and its Foundations*

Conclusion

Arguments for changing the foundation of economics have been made at several points in the history of the discipline particularly, from the 19th Century. Yet, no argument has fatally wounded orthodox economics. The most successful attempt so far was Keynes's *General Theory*. Before Keynes, Marx (1994), the Historical School, the Institutional School, the Empiricist and Austrian Schools have challenged orthodox economics on many grounds: failure to view consumption, production, distribution and exchange as organic (Marx); ahistorical (historical school); teleological (Veblen, 1994) and lacking in empirical content (Hutchison, 1994). It has also been argued that markets are often in disequilibrium (Austrian School) leading the Austrian School to propose process views of markets: the market as a discovery process and the market as a creative process. After every attack, the orthodox economists re-invent their theory and grow in power and influence. Key examples are the "axiomatization of theory" (after the Hutchison and Lester challenge) and counter-revolution (in the 1970s) to diminish the influence of Keynesian economics in theory, learning and practice (policy making).

It is unlikely that the orthodox will stop being part of economics any time soon. However, the continued survival of orthodox economics despite its foundational deficits questions the willingness of economists to overcome the cognitive control of orthodoxy. Yet, the issue is not whether economists want a change but how long the world will put up with the failure of economics to provide sound directions for governments and people of the world on a sustainable basis.

Mr. Vice Chancellor Sir, the greatest weakness of orthodox economics is that it has no faith in the goodness of human beings. Lacking in faith, it created man in the image of its stereotype and attributes to its created man (economic man) godly powers (perfect knowledge). It then built on it, a hierarchy of theories that are then used to guide the choices and actions of individuals, businesses and governments. Driven by such choices and actions, national and global economies tend to go through cycles of booms and burst that deepen and widen inequalities and disconnections between the financial and the real sectors of the economies.[55]

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[55] During the Great Depression, unemployment was about 25% in the United States and higher in many countries and the suicide rates were also higher. In the second Great Depression, similar rates are observed in Spain, Greece, Nigeria and many developing countries. In both cases, the effectiveness of policy was weak. In the more latest case, both fiscal and monetary policy widen income inequalities as

My faith teaches me that a bad tree cannot bring forth good fruits and that a bad tree is known by its fruits.[56] History of economic thought, economic history, the ongoing global economic and financial crisis and my experience in policy making convinces me that without a virtuous foundation, economics will not produce "good fruits" for humanity.[57] Also, that to stand a chance of producing good fruits for humanity, a virtuous way of learning and doing economics is necessary.

This inaugural lecture speaks to economists to convince them to rethink the discipline in terms of what we believe we know; what we teach and how we influence individuals, businesses, social organizations and governments to think about economic phenomena and their options and to make decisions which affect them and many others. That we (economists) are not held accountable for the failure of economics as doctors are when they mismanage their patients in some societies is cold comfort. We may pretend as much as we want but the truth is, expired but resilient economic ideas have done great damage to far too many lives for far too long. The question is *how much longer are we willing to teach unreality and untruths as economic theory and what costs are we willing to make humanity pay*? Every economist has a moral burden and must make a choice: not a choice informed by rational greed but one informed by the moral burden of the great potential of our discipline for good, and great potential for bad, which Keynes and many economists before and after him have pointed out. This is the crux of this lecture.

Mr. Vice Chancellor Sir, the lecture also speaks specifically to Nigerian economists (academic and non-academic), students of economics and departments of economics. The way we learn, teach, research and apply economics is limited by cognitive bondage to orthodoxy. Because of cognitive bondage we limit the boundaries

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the rich benefit more from quantitative easing regime and from fiscal stimulus. The global misery level is obviously rising.

[56] Mathew 12:33 "To have good fruit you must have a healthy tree; if you have a poor tree, you will have bad fruit. A tree is known by the kind of fruit it bears."

[57] I am not denying the material advances of the 20th and 21st century. My point is three-fold. The human costs of the material advances in terms of inequity, poverty and avoidable wars are much too high for the material progress. Two, the material progress has come at great spiritual costs. Three material progress is not sustainable.

and content of economics. Also, we learn, teach, research and practice economics with considerable lag. Our surrender or submission to orthodox boundaries and the lag-effects sap creativity and innovativeness from our learning, teaching and research experiences; and from public policy and policy implementation. Students fulfill requirements for the award of certificates without acquiring the knowledge, insight and character required to solve concrete problems. This is dangerous for students, for the nation and for humanity. It is important therefore, that we rethink what and how we teach and learn economics as preconditions for purpose driven practice.

The global financial crisis has shown clearly, that the premise that some people have all the solutions to global economic problems is false. Therefore, the premise that we have nothing more to contribute is false. It is important that Nigerian economists stop feeding fat on "fast food" (of mainstream and heterodox economics). As teachers, we must encourage our students to be creative and innovative. The practice of limiting the boundaries of economics is a fatal mistake. Economics has much to learn from allied disciplines (marketing, business administration and accounting), from philosophy, cognitive psychology, sociology, political science, law, history, human and physical sciences and faith based disciplines.[58]

In rethinking what and how we teach economics in Nigeria, five issues are critical. First, we need to relax the orthodox boundaries imposed on economics. Economics does not need to assert its separateness from allied disciplines (marketing, finance and accounting); philosophy, cognitive psychology, sociology, biology and history. There is much about purpose, human nature and about the dynamic economic space that economics can learn from these disciplines. Second, we should comprehensively redesign the economics curriculum. We have offered in Garba, Aregbeyen, & Usman (2004) guidance for structuring theory courses to ensure that students have clarity about what is added at each level (100, 200, 300 and 400) how the tools should be synchronized with the theory

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[58] The Journal of Economic Literatures' (JEL) classification shows how broad the practice of economics has become. Yet, many departments of economics in Nigerian still operate under the very narrow view of economics.

courses. The comprehensive redesign requires redesign from its foundation and, ensuring that students have sound understanding of concepts, logic, relevant philosophy; methodology of economics and economic history.

Third, we must take a clear decision on the moral burden our discipline places on us. Without it, we may not see the need for fundamental changes to the what, and how of our teaching and learning of economics. Fourth, we should give greater weight to problem solving and inter-disciplinary collaborative work. This will require designing incentive systems to encourage such collaborative works.[59] Fifth, we must inspire our students to contribute to conceptual and theoretical work as well as evaluation of contributions of Nigerian and African economists. I expect to read PhD thesis on the works of Professors Ojetunji Aboyade, Eskor Toyo, Sam Aluko, Adebayo Adedeji, Bade Onimode, Ademola Oyejide, O. Teriba, Ojo, M. O. Kayode, Ibi Ajayi, Siyanbola Tomori, J. S. Odama, Sam Olofin, Akin Iwayemi, Uka Ezenwe, Joe Umoh, Mike Kwanashie, Mike Obadan, Ode Ojowu, Christian Okojie, Akpan H. Ekpo, Ben Aigbokhan, Kassey Garba, Melvin, Ayogu, Charles Soludo and so on.

The lecture also speaks to non-economists. Economic ideas have powerful influence on all aspects of human life. There is no discipline or aspect of human life that is untouched by economics. Therefore, non-economists cannot afford to leave the formation of economic ideas to economists. For if economists "preach" rational greed, how, can you trust them to give morally sound and wise advice that human beings need to live morally sound, wise and decent lives? Non-economists therefore, have to be part of the discussion about the future of economics because the future of economics will influence the future of humanity.

This lecture is for me the ending of a phase. God willing is also, the beginning of a more fruitful one. By His Grace willing, I have resolved to use the gifts God has generously blessed me with for the development of a *purpose driven economics* and to follow His leading. May God help us to add to knowledge; wisdom, understanding and above all, godliness. Amen.

[59] The current promotion guideline will need to be modified to encourage this type of work.

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