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Book Review — Published Version

Book Review of Introduction to Dynamic Macroeconomic General Equilibrium Models. (2nd Ed) Wilmington, DE: Vernon Press, 2015. 282pp ISBN: 978-1-62273-030-8 (Hardcover) written by Josh L. Torres.

All Nations University Journal of Applied Thought (ANUJAT)

Suggested Citation: Jackson, Emerson Abraham (2018) : Book Review of Introduction to Dynamic Macroeconomic General Equilibrium Models. (2nd Ed) Wilmington, DE: Vernon Press, 2015. 282pp ISBN: 978-1-62273-030-8 (Hardcover) written by Josh L. Torres., All Nations University Journal of Applied Thought (ANUJAT), ISSN 2026-691X, All Nations University College, Koforidua, Vol. 6, Iss. 1, pp. 284-289,
https://www.anuc.edu.gh/home/journal/36/journalmore.html

This Version is available at:
https://hdl.handle.net/10419/190826

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Mitglied der Leibniz-Gemeinschaft

Journal

of

APPLIED THOUGHT

(*A Multidisciplinary Approach*)

Volume 6

NOVEMBER 2018 ISSN 2026-691X NUMBER 1

All Nations University Journal *of* Applied Thought (ANUJAT) Published in January, May and November by:

All Nations University College, P. O. Box KF 1908, Koforidua, Ghana

EDITORIAL

As routine, the Managing Editor and I, sincerely thank all the authors who have contributed to this issue. We also thank our in-house and external reviewers for their continued support. Papers submitted that are not in this issue will be published in the May 2019 issue.

ANUJAT is an international journal, as such we continue to encourage writers in every academic discipline interested in academic publishing to send their papers to us. We assure of a vigorous and prompt peer-review of your work.

The papers/essays are expected.

Professor Prince S Conteh
Chief Editor

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Review

The book comprised of six parts and a total of twelve chapters. Part I, “Introduction to Dynamic Stochastic and General Equilibrium (DSGE) Modelling,” set the underlying foundation of the basics of three key agents in DSGE formulation, namely, the Households, Firms and Government, while also acknowledging the important role policy-oriented agents like Central Bank and the External sector play in understanding the complex operations of macroeconomic models to economic realities. The author has provided concise illustration of the importance of neoclassical DSGE developed by Ramsey in the late 1920s as the platform for simulating complex combination of (economic) agents in a pseudo-laboratory environment using available tools like MatLab / Octave and much needed relevant DYNARE / IRIS codes to operationalise economic realities. Chapter 2 focuses attention on the behaviour of two economic agents, namely *'Household and Firm's* in operationalising realities of macro-model DSGE foundation - household in the model is thought of as being responsible for making

decisions relating to choices of consumption, how much to spend (given budget constraints) and time devoted to work in order to satisfy demand, while firms decide on quantity of production given the associated cost of capital. In this case, firm is said to operate under the aggregate production function, given technological constraints. The model provide an optimisation of two agents (firm and the household) to ensure efficiency is maximized, also expressed as the Pareto Optimality. The DSGE model specification is fully applied here with consideration given to constraints posed to the economy, and these may be as a result of the influence of (internal or external) shocks which are stochastic in nature.

Part II, "Deviations from the Permanent Income-Life Cycle Hypothesis," consists of chapters 3 and 4. In this part, the author presented an excellent case of habit formation by the consumer, which is based on standard of living consumers intend to maintain over a period of time, irrespective of negative shocks, as there is a trade-off in adjusting savings so as to continue keeping up with the same lifestyle. Chapter 3 concludes by explaining the importance of habit formation and the impact of shocks on consumption and investment pattern depicted by impulse response function. Chapter 4 takes a look at a form of DSGE model, with assumption based around non-optimal consumption pattern of cross-section population, based on liquidity constraints and imperfect financial markets operation. This then allow for sensitivity reaction through deviation from the permanent income lifecycle, which assumes two types of economic agents - the *Ricardian* who has no constraint on their liquidity and hence can take decision easily on consumption-savings pattern, while the *non-Ricardian* is overly constrained in terms of liquidity conditions and hence, total behaviour of the economy is a considered aggregate of the two group of agents.

Part III, "Investment and Capital Accumulation," consisting of chapters 5 and 6, commences by addressing the importance of capital stock and adjustment to investment which comes at a cost to agent(s) and in this case, the firm. Chapter 5 distinguishes between two types of adjustment cost to agents, and this include external factor(s) arising out of the perfect elastic supply of capital, while the second, internal is measured in terms of production, which is the forgone alternative of labour in order to build

on new capital stock. In chapter 6, the importance of investment-specific technology change is emphasized. This shows how much of a change technological investment makes to Total Factor Productivity (TFP) and in reality, justified by the neoclassical growth model.

Part IV, “The Government” comprises chapters 7, 8 and 9. The importance of government (fiscal policy measures) is given serious consideration, more so in terms of revenue collection (Taxes). While revenue element is very important, taxes (consumption, labour and capital income) also affect the relative price of production factors and final goods and services produced. The book also presented the concept of "The Laffer Curve", which depict relationship between level of taxes and tax receipts (fiscal revenues) in an economy - there is a clear indication to show that increase in TFP shock with regard to the government component of a typical DSGE model will see an expansion of economic activities including fiscal revenues, which is reflected on the Laffer Curve. Chapter 8 focuses on public spending, which is based on government action to utilise revenues raised. This is thought to impact on households consumption and as well as firms' scope of growth in the economy. Chapter 9 introduces the government as a supplier of public input, through utilisation of tax revenues to finance public investments, also said to raise total productivity in the private sector. Therefore, the production function of the economy in this situation will incorporate factors like 'labour, private capital and public capitals'. A typical DSGE model in this case incorporate three factors, while the third, public capital is said to bear no market price, which means that rent from public input is assigned to the private factor.

Part V, “Time Decisions” is made up of chapters 10 and 11. Chapter 10 introduces Human Capital as an important factor of productivity, but heavily time-bound. Therefore, in a standard DSGE model, human capital, also equated to a type of technology embodied in human beings is introduced as normal and with the alternative of time allocated to skills acquisition (which bears high cost to it, but comes with the benefit of enhancing high scope of productivity) and leisure. Like any standard DSGE model, human capital inclusion allocate non-leisure time between production and learning. TPF shock with regard to human capital

inclusion comes with varying outcomes, this include positive shock resulting in a rise in price of production factors, while a reduction in time devoted to skills acquisition reduces potential of human capital stock. In chapter 11, emphasis is placed on home / domestic production. This is represented in a standard DSGE model as a composite of three parts, namely working time, leisure and homework, with the homework activities incorporating child care, laundry, cleaning and cooking.

Part VI, “Imperfect Competition” contains chapter 12 and it shows deviation from the neoclassical model; it is thought to be driving the so-called *“Competitive General Equilibrium”* (p. 249). The case of market imperfection is addressed in the production sector, which does not alter the behaviour of a typical DSGE model with respect to households' behaviour. The author explains here, problems faced by firms, typified by two types of goods, namely 'final goods and differentiated intermediate goods which is also produced in a monopolistic competitive environment. In this situation, the production factor is thought to depend on the elasticity of substitution between differentiated goods, which indicate a power of the firm to dictate prices. In such a situation, it is believed that both wages and interest rate are lower compared to that which is obtained in a normal competitive environment. This is said to be as a result of mark-up price of goods relative to the marginal cost of production. The situation of "sticky price" is also a case of imperfect competition, a characteristics of the New Keynesian economy, also introduced in the model as 'Nominal Rigidities'. The equilibrium DSGE model for a typical case of imperfect competition is given by the combined first order conditions for both firms and consumers, which the author expressed in a set of *eight-equation* model, with relevant endogenous variables and parameters. The effect of Total Productivity shock in such an imperfect competitive model is thought to produce lower level of equilibrium output for an economy.

Suggestions for Author's Consideration

The book though very good in terms of providing the basics of DSGE to learners and practitioners, there are areas and issues I feel the author

should have addressed to make it possible for users to fully appreciate the usefulness and applicability of the book:

- Future cases need to distinguish between an open and closed economy. In this case, it will be particularly useful to provide real examples of data, with forecasting outcomes to address macroeconomic realities in both cases.
- Given the generality of the book and with reference to the aforementioned point, it would be good for the author to pay attention to the applicability of DSGE in different economy contexts, particularly with reference to those economies considered to be a typical non-Ricardian state, as in the case with the developing economies of the world where economic agents' choices of spending habit is very limited.

Conclusion

In conclusion, the book is very well structured to support practical skills development in understanding DSGE modelling through exercises to graduate a user knowledge on macroeconomic application relevant for policy decisions through use of scientific programs like DYNARE / IRIS, appropriate for use with MatLab/Octave. The author also provided useful references for the more inquisitive reader or practitioner to develop his / her ontological quest for further knowledge in the macroeconomic management of a state (Jackson, 2016). On the basis of relevance of its contents pertaining to theoretical application of macroeconomic policy and management of an economy, I strongly recommend this book to anyone preparing for graduate courses in Economics and related areas like Econometrics, Economic Policy Management and also, to the practitioner-researcher engaged in macroeconomic model construction and policy formulation.

Reference

Jackson, E. A. (2017). "Economic Methodology: Paradox of Ceteris Paribus (CP) Law in the Context of Sierra Leone Method(s)." African Review of Social Sciences Methodology, vol. 2 (1-2): pp. 31-4. DOI: 10.1080/23754745.2017.1354553.