

## Instructions to Authors

The Instructions for Authors to the CBN Journal of Applied Statistics (CBN-JAS) are divided into 2 sections:

- I. Manuscript Preparation - which gives the Style and Form to be used by authors in the preparation of manuscripts; and
- II. Policies and Procedures of the CBN-JAS - which provides details concerning the mission of the CBN JAS, contact information, the types of articles accepted by the CBN-JAS, submitting manuscripts to the CBN-JAS (including copyright policies), the review procedures and policies, and papers in press, author proofs, and honorarium for authors.

### I. Manuscript Preparation (Style and Form)

The most important thing you can do as you prepare your manuscript is to consult a recent issue of the CBN-JAS at <https://www.econstor.eu/handle/10419/142031> and/or <http://www.cenbank.org/Documents/cbnjas.asp> in terms of the acceptable format for Headings, Title page, Abstract, Key words, Introduction, Methodology, Results, Discussion (or combined Results and Discussion), Literature Cited, and Tables and Figures (including figure captions), which are described in more detail below. **Failure to adhere to the style and form will result in immediate rejection of the manuscript.**

**General:** Papers must be written in English and must use the British spelling and usage as well as standard statistical/econometrics usage. The Statistics Department of Central Bank of Nigeria (CBN) welcomes submissions of novel research articles to be published in the *CBN Journal of Applied Statistics* (CBN-JAS). The journal is a refereed publication and publishes original articles with the potential to contribute to the field of applied statistics. Such articles should achieve at least one of the followings:

- (i) present statistically innovative, scientifically and practically relevant statistical analyses of monetary, banking, financial and general economic datasets;
- (ii) substantially contribute to the applied statistics field through the use of sound statistical methods;
- (iii) evaluate the quality of important data sources, even if there are no methodological innovations.

Articles presented for publication should be original articles not published elsewhere. Cases of authors submitting articles published elsewhere if proven, could lead to such authors being blacklisted by the joint Advisory and Editorial Boards of the CBN-JAS.

The formatting of all articles selected for publication must conform to the following guidelines:

- i. The article must be based on original research, not to have been published or submitted in part or whole for publication elsewhere. All articles will first undergo an internal vetting process to determine its suitability for the CBN-JAS and its degree of originality. Articles that pass the internal vetting will then undergo the peer review process in accordance with generally accepted standards.
- ii. The manuscripts should be submitted in MS Word 2007 or higher, typed in double space on A4 size paper having margins 1.0” on both sides. Type face: Times New Roman, and font size: 12. Tables and Figures should be placed in the text not in separate sections at the end of the manuscript.

**Structure of Manuscripts:** Articles submitted for publication should include Abstract, Key words, Introduction, Literature Review (Theoretical and Empirical), Methodology, Results, Discussion and Reference sections.

**Title:** The title of paper must be as brief as possible and contain words useful for indexing. (only the first word and any proper nouns capitalized); full names of authors (e.g., Sani Ibrahim Doguwa; no title, positions, or degrees) and institutions, including the department, city, state or country (all with first letters capitalized), and ZIP or postal code. Affiliations are footnoted using the symbols \*, †, ‡, §, and are placed below the author names. Footnotes on the first page (present address, and e-mail address of the corresponding author) are referenced by superscript numbers. Acknowledgments, including acknowledgements of grants, experiment station, or journal series number, are given as a footnote to the title. Authors who hold patents related to the research presented in the manuscript should include a statement in a footnote.

**Abstract.** The abstract should consists of no more than 2,500 keystrokes (characters plus spaces) italicized, in one paragraph and should summarize the pertinent results in a brief but understandable form, beginning with a clear

statement of the objective and ending with the conclusions, with no references cited. Abbreviations in the abstract that are not standard abbreviations must be defined at first use. Data sources and range should be clearly stated.

**Key Words:** List up to 6 key words or phrases, variables tested. The first letter of each key word is lowercase (unless a proper noun); key words are separated by commas and presented in alphabetical order; and no abbreviations should be used. Appropriate words from the title (or synonyms) should be listed as key words.

**Introduction:** The Introduction must not exceed 2,000 keystrokes (characters plus spaces) and briefly justifies the research, specifies the hypotheses to be tested, and gives the objective(s). Extensive discussion of relevant literature should be included in the Discussion.

**Literature Review:** In the literature review, author(s) must demonstrate thorough knowledge of the field. This means more than reporting what has been read and understood. It should be written in such a way that shows possession of a feel for the area; knowledge of what the most important issues are and their relevance to the work, knowledge of the controversies, what has neglected by others and having the anticipation of where it's being taken. All this would allow you to map the field and position your research within the context. Theoretical framework should be clearly stated and methodological focus. Even if a new theory or a new method is being proposed, it is being done in relation to what has been done by others.

**Methodology:** A clear description or specific original reference is required for all analytical, numerical and statistical procedures. All modifications of procedures must be explained. All techniques and statistical models should be described clearly and fully. Appropriate statistical methods should be used, although the econometrics should be emphasized. Statistical methods commonly used need not be described in detail, but adequate references should be provided. The statistical model, classes, blocks, and experimental unit must be designated. Any restrictions used in estimating parameters should be defined. Reference to a statistical package without reporting the sources of variation (classes) and other salient features of the analysis, such as covariance or orthogonal contrasts, is not sufficient. A statement of the results of the statistical analysis should justify the interpretations and conclusions.

The experimental unit is the smallest unit to which an individual treatment is imposed. Also, provide a publication reference for the methodology used.

**Results:** The results are presented in the form of tables or figures when feasible. The text should explain or elaborate on the tabular data, but numbers should not be repeated within the text. Sufficient data, all with some index of variation attached (including significance level; i.e., *P*-value), should be presented to allow the reader to interpret the results of the experiment. Reporting the actual *P*-value is preferred to the use of the terms *significant* and *highly significant*. Thus, the observed significance level (e.g.,  $P = 0.05$ ) should be presented, thereby allowing the reader to decide what to reject. Other probability (alpha) levels may be discussed if properly qualified so that the reader is not misled (e.g., trends in the data).

**Discussion:** The discussion should interpret the results clearly and concisely in terms of biological mechanisms and significance and also should integrate the research findings with the body of previously published literature to provide the reader with a broad base on which to accept or reject the hypotheses tested. A stand-alone Discussion section should not refer to any tables or figures, nor should it include *P*-values (unless citing a *P*-value from another work).

**Results and Discussion:** In the *CBN-JAS*, authors have the option of combining the results and discussion into one section.

**References:** To be listed in the References section, papers must be published or accepted for publication (“in press”). Personal communications and unpublished data must not be included in the Literature Cited section. Referencing (in an alphabetic ascending order) should be made on separate sheet(s) and at the end of the paper where all publications cited in the text are presented. (See the References Guidelines later in this document.). In general, at any given time, the most recent version of the American Psychological Association (APA) referencing style and format is recommended for use by authors.

**Tables and Figures:** Tables and figures must be prepared so they stand alone. Author-defined abbreviations must be defined (or redefined) in each table and figure. Tables should be positioned in the body of the work and Tables Titles should be above the Tables. Figures (should only be provided if they improve the article) should be sharp computer generated drawings and Figures Titles

should be below the Figures. Each column must have a heading; limit the data field to the minimum needed for meaningful comparison within the accuracy of the methods. In the body of the table, references to footnotes should be numerals. Each footnote should begin on a new line. Figures should be placed within manuscript, centralized and identified by the figure number with a brief caption. The use of color in figures should be avoided unless it is essential to understanding the figure.

**Appendices:** To provide readers with numerical examples or give extensive detail of analytical procedures, an appendix or appendices can be included. However, if the supplemental material is of interest only to a limited number of the *CBN-JAS* readers, it should not be included as an appendix. Instead, mention that supplemental information is available on request from the author; addresses for websites with appropriate supplemental information are acceptable. If extensive, the data may be included as an e-supplement to the manuscript. Appendices should follow the Literature Cited section and be introduced by a major heading.

**Online-Only Data Supplements:** Authors can present material online that cannot physically be displayed in the print journal (e.g., Excel files), that might be cost-prohibitive (e.g., color figures), or that provides data sets too detailed for publication in print. A note will appear in the print version that more material can be found online. Material posted online only must go through the review process, and consequently should be in a format easily accessible by most reviewers and readers.

**Abbreviations:** Abbreviations in the text that are not standard abbreviations must be defined at first use. Once defined, author-identified abbreviations should always be used, except to begin a sentence. Author-identified abbreviations need to be redefined in the abstract, at first use in the body of the paper, in each table, and in each figure. Authors should avoid excessive use of author-defined abbreviations.

**Equations:** Microsoft Equation Editors of Window **2007** or higher should be used or Math-Type™ 6 (Inline) or above. Any Microsoft™ Equation Editor below Window™ 2007 used will result in outright rejection of the paper.

**Proof:** A marked copy of the proof may be sent to the corresponding author who must return the corrected proof to the Editor-in-Chief without delay.

**Data:** Data with sources must be submitted in a separate sheet when submitting empirical papers.

**General Usage:**

- Note that “and/or” is allowed but not preferred; we ask that authors choose the more appropriate meaning or use “x or y or both” if possible.
- Restrict the use of “while” and “since” to meanings related to time. Appropriate substitutes include “and,” “but,” or “whereas” for “while” and “because” or “although” for “since.”
- The word “Table” is capitalized and never abbreviated. The word “Figure” should be abbreviated to “Fig.” when referred to in the text, unless it begins a sentence (then spell out as “Figure”). Experiment and equation should be abbreviated to Exp. and Eq., respectively, when preceding a numeral.
- Avoid jargon unfamiliar to other researchers in the discipline.
- Avoid bi- as a prefix because of its ambiguity; biweekly means twice per week and once every 2 weeks.

## II. Policies and Procedures of the CBN-JAS

The mission of the CBN Journal of Applied Statistics is to foster communication and collaboration among individuals and organizations associated with applied statistics research, education, industry, or administration. The CBN Journal of Applied Statistics (CBN-JAS), which is published biannually by Statistics Department of the Central Bank of Nigeria, accepts manuscripts presenting information for publication with this mission in mind. The editorial policies of the *CBN-JAS* are established by the Editor-in-Chief, Editor, Managing Editor and Editorial Board, subject to review by the Advisory Board. The views expressed in papers published in the CBN-JAS represent the opinions of the author(s) and do not necessarily reflect the official policy of the institution with which the author is affiliated, the Central Bank of Nigeria, or the Editor-in-Chief. It is the responsibility of the authors to ensure the accuracy of collection, analysis, and interpretation of data in manuscripts and ultimately to guarantee the veracity of the contents of articles published in the CBN-JAS.

The CBN-JAS is one of the most frequently cited, peer reviewed, applied statistics oriented research journals. This attests to the quality standards maintained by the CBN-JAS editorial and advisory boards, editors, and staff and by authors who submit manuscripts for publication.

### **Contact Information**

For information on the scientific content of the journal, contact the **Editor-in-Chief, The CBN Journal of Applied Statistics, Statistics Department, Central Bank of Nigeria, PMB 0187, Abuja, Nigeria** (e-mail: [cbn-jas@cbn.gov.ng](mailto:cbn-jas@cbn.gov.ng); [c@cbn.gov.ng](mailto:c@cbn.gov.ng)).

For more information, contact the Secretariat at [cbn-jas@cbn.gov.ng](mailto:cbn-jas@cbn.gov.ng) and for assistance with author proofs contact the Managing Editor at [mabamanga@cbn.gov.ng](mailto:mabamanga@cbn.gov.ng).

### **Types of Articles**

Articles published in the CBN-JAS encompass a broad range of research topics in applied statistics and fundamental aspects of applied economics and econometrics will be considered for publication.

The preceding paragraph is not meant to exclude manuscripts but, rather, is a clarification of the focus of the journal. If there are any questions concerning the appropriateness of a manuscript for the journal, please contact the editor-in-chief.

**Research Articles:** Results of work contained in manuscripts submitted to the CBN-JAS must not have been published or submitted previously in a refereed scientific journal. Previous presentation at a scientific meeting or the use of data in field day reports or similar documents, including press publications or postings to personal or departmental websites, does not preclude the publication of such data in the CBN-JAS. Articles simultaneously posted to websites and submitted to the CBN-JAS should carry a disclaimer on the website that this version of the paper has not undergone the CBN-JAS peer-review and is not to be considered the final published form of the article. If the article is published in the CBN-JAS, the author should post the PDF (reprint) version of the article to the website so that proper credit can be given to the CBN-JAS as the publisher of the article. Because the CBN-JAS holds the copyright to articles it publishes, posting altered the CBN-JAS articles that are represented as an exact duplicate of the published version constitutes copyright violation.

**Review Article:** The journal publishes board-invited review articles each year in the areas of monetary, banking, financial and general economic statistics. There is also a document section where key note addresses or special remarks by distinguished personalities on money, banking, financial and general economic statistics would be published. These reviews are identified by the Editor-in-Chief in consultation with the Editor and Managing Editor. Occasionally proposals for review articles to be published in the CBN-JAS may be solicited by Associate Editors, after consultation with the Editor-in-Chief; the authors will be eligible for publication honorarium for these articles just like other authors. Unsolicited review articles will not be considered.

**Special Topics:** Papers will be considered for publication in this division that present Biographical or Historical Sketches, or that present viewpoints dealing with Contemporary Issues or Teaching in statistics and applied statistics, or Perspectives that put a particular current topic into context in terms of its relationship or importance to an entire area.

Biographies and Histories are part of the Special Topics Division but will be published on the journal webpage

(<http://www.cenbank.org/documents/cbnjas.asp>). The frequency of publication depends on the availability of the prepared sketches.

Contemporary Issues include topics such as environmental concerns, legislative proposals, systems analysis, and others. Teaching papers may discuss innovative pedagogical methods, philosophy of education, or solutions to teaching problems in statistics and applied statistics. Although Contemporary Issues or Teaching papers do not have to include original data, whenever appropriate the stated assertions should be substantiated by references to established information from credible published sources.

Special Topics papers will be subject to peer review in a manner similar to other submissions. Because of the nature of these papers, their format may vary from that of standard scientific articles.

**Technical Notes.** A technical note is a vehicle to report a new method, technique, or procedure of interest to the CBN-JAS readers. When possible, a technical note should include a comparison of results from the new method with those from previous methods, using appropriate statistical tests. The advantages and disadvantages of the new procedure should be discussed. When typeset, a technical note shall not exceed 6 pages (9 typed manuscript



pages), including tables and figures. The words “Technical note” shall be the first words of the title of such manuscripts. The review process for a technical note will be the same as that for other manuscripts.

**Letters to the Editor:** Letters judged suitable for publication will be printed in a “Letters to the Editor” section of the CBN-JAS. The purpose of this section is to provide a forum for scientific exchange relating to matters published in the CBN-JAS. To be acceptable for publication, letters must adhere to the following guidelines: (1) Only letters that address matters of science and relate to information published in the CBN-JAS will be considered. In general, letters should not exceed 5,000 characters plus spaces and should contain no more than 5 citations; (2) Letters should provide supporting evidence based on published data for the points made or must develop logical scientific hypotheses; letters based on conjecture or on unsubstantiated claims will not normally be published. No new data may be presented in the letters; (3) Letters will be considered by the editor-in-chief and if deemed appropriate for publication, the author(s) of original paper(s) will be invited to write a letter of response. Normally both letters will be published together; and (4) All letters will be subject to acceptance and editing by the editor-in-chief and editing by the editorial board.

### **Submission of Manuscripts**

Manuscripts should be submitted electronically by sending an email addressed to the Editor-in-Chief, the CBN Journal of Applied Statistics, Statistics Department, Central Bank of Nigeria, to [cbn-jas@cbn.gov.ng](mailto:cbn-jas@cbn.gov.ng); [cbnjas@gmail.com](mailto:cbnjas@gmail.com); your manuscript should be included as an attachment. The body of your email must clearly state the purpose for which you are sending in the manuscript. As much as possible, authors should avoid sending in manuscripts by proxy.

### **Copyright Agreement**

Authors shall complete the Manuscript Submission and Copyright Release form for each manuscript accepted for publication in the CBN-JAS. Persons unable to complete copyright agreements, such as federal employees, must indicate the reason for exemption on the form. The copyright to material published in the CBN-JAS is held by Central Bank of Nigeria. Persons who wish to reproduce material in the CBN-JAS must request written permission to reprint copyrighted information from the managing editor. Likewise, it is the responsibility of authors of the CBN-JAS manuscripts who include

material (usually tables or figures) taken from other copyrighted sources to secure permission from the copyright holders and provide evidence of this permission at the time the manuscript is submitted to the CBN-JAS for review. Tables or figures reproduced from the work of others must include an acknowledgment of the original source in a footnote or legend.

### **Review of Manuscripts**

**General Procedures:** Every manuscript received undergoes first an internal vetting process; where the Editorial team judges it for its suitability for publication in the CBN-JAS, then it is put through an originality test using an anti-plagiarism software. All communications regarding a submitted manuscript maintains strict confidentiality.

Associate editors handle correspondences with the author and promptly work with the Managing editor, the Editor and the Editor-in-Chief on preliminary evaluation to certify whether a manuscript should be rejected or accepted for further review. Note that at this stage, manuscripts may be returned to the author for revision before acceptance. The Editor-in-chief is the final arbiter regarding acceptance or rejection of manuscripts at this stage.

Next, manuscripts that pass the preliminary evaluation stage are then sent to three external reviewers for blind review. A reviewer is given a maximum of three (3) months to conclude with a paper; after the first month, a reminder would be sent to the reviewer, if the report is not received by the end of the second month, a second reminder would be sent to such a reviewer, if at the end of the third month the reviewer had still not responded then the paper is reassigned to another reviewer and the concerned reviewer communicated about the reassignment.

As a policy, the CBN-JAS would not contact an author about the status of the review process on his or her manuscript until at least two reviewers' reports have been received and these reports are such that a conclusive decision can be taken on the manuscript based on them. A manuscript must typically receive two positive reviews to be considered for publication.

Manuscripts that are eventually considered for publication are returned to the authors for revision. Normally, the revised manuscripts must be returned to the Secretariat within 4 weeks from the date of receipt by the authors. If at the expiration of the 4 weeks an author had failed to send in his/her revised paper,

he or she would be given a maximum of two (2) reminders of two weeks interval each; if after the second reminder the author fails to respond, then it would be taken that the author is no longer interested in publishing the article with the CBN-JAS and the review process would stop. Extenuating circumstances must be communicated to the Managing editor for consideration and granting of an extension.

**Rejections:** There are four main grounds for rejection of manuscripts. First, manuscripts that are not written clearly, concisely, and coherently or that do not conform to the CBN-JAS style and guidelines will be rejected without review. Authors whose first language is not English are urged to have their paper reviewed by an editing service. Second, the substance of the manuscript may not meet the CBN-JAS standard: the work may be incomplete, the evidence may not support the conclusions, the experimental approach may be poorly conceived, or the work may repeat established fact or represent no advances of existing knowledge and thus two reviewers recommend its rejection. Third, although the work may be sound and the results valid, the paper may be better suited for publication in other journals rather than the CBN-JAS. Fourth, if it is discovered that the author had published the work in another journal while it is under consideration at the CBN-JAS.

### **Galley Proofs**

**Galley proofs:** Accepted manuscripts are forwarded by the Editor-in-Chief to the editorial office for technical editing and typesetting. At this point, the Managing Editor may contact the authors for missing information or figure revisions. The manuscript is then typeset, figures reproduced, and author proofs prepared. Correspondence concerning the accepted manuscript should be directed to the Managing Editor.

Proofs of all manuscripts will be provided to the corresponding author and should be read carefully and checked against the typed manuscript; accuracy of the galley proof is the author's responsibility. Corrections would usually be returned by e-mail. Changes sent by email must indicate page, column, and line numbers for each correction to be made on the proof. Editor queries should be answered on the galley proofs; failure to do so may delay publication.

## Digital Archiving and Open Access Dissemination

Articles accepted and published in CBN-JAS are placed in EconStor, the Open Access publication server of the ZBW – Leibniz Information Centre for Economics and also Germany’s most important repository for economics, <https://www.econstor.eu/handle/10419/142031>, for the digital dissemination of her publications in Open Access. EconStor helps to disseminate the publications on the web visibly and effectively.

## References Guidelines for the CBN Journal of Applied Statistics

**Citations in the Text:** In the body of the manuscript, refer to authors as follows: John and James (1992) or John and James (1990, 1992). If the sentence structure requires that the authors’ names be included in parentheses, the proper format is (John and James, 1982; James, 1988a,b; John *et al.*, 1993). When there are more than 2 authors of an article, the first author’s name is followed by the abbreviation *et al.* More than 1 article listed in the same sentence or parentheses must be in chronological order first and alphabetical order for 2 publications in the same year. Published articles, and not abstracts, should be cited whenever possible; if the work was originally described in an abstract, the author(s) should use a literature search to determine if the work has been published as a peer reviewed article.

Work that has not been accepted for publication shall be listed in the text as “A. E. James (institution, city, and state or country, personal communication).” The author’s own unpublished work should be listed in the text as “(G. Stephen, unpublished data).” Personal communications and unpublished data must not be included in the References section.

**References Section:** To be listed in the References section, papers must be published or accepted for publication (“in press”). In the References section, references are listed alphabetically by the author(s)’ last name(s), and then chronologically. The year of publication follows the authors’ names. As with text citations, 2 or more publications by the same author or set of authors in the same year shall be differentiated by adding lowercase letters after the date. All authors’ names must appear in the References section. Journals shall be abbreviated according to the conventional ISO abbreviations. One-word titles must be spelled out. Inclusive page numbers must be provided. Sample references are as follows:

(a) **Periodicals:** The citation should be as follows:

Author's last name, first and middle name initials, year of publication, "Title of the article", Name of the Journal (to be underlined/italicized), Volume number (month): and Page number (pp). For example:

Nnnana, O. J. (2004). Financial Sector Development and Economic Growth in Nigeria: An Empirical Investigation. *Central Bank of Nigeria Economic and Financial Review*, Vol. 42 No. 3.

Doguwu S. I. and Upton G. J. G. (1989). Edge-corrected Estimators for the Reduced Second Moment Measure of Point Processes. *Biom. Journal*, 31:563-575.

Tumala, M. M. and Yaya, O. S. (2015). Estimating Bull and Bear Betas for the Nigerian Stock Market Using Logistic Smooth Threshold Model. *CBN Journal of Applied Statistics*, Vol. 6 No. 1(b) (June, 2015).

(b) **Online Periodicals:** The citation should be as follows:

Author, A. A., Author B. B., & Author C. C. (2000). Title of article, Title of Periodical, year, from source ([http ://.....](http://.....)) For example:

Federal Reserve Board (2006). Monetary Policy, 2006 (<http://www.federalreserve.gov/policy.htm>).

(c) **Symposia and book of proceedings etc:** The citation should be as follows:

Alade, S.O., M. Ajayi, C.I. Enendu, and A.E. Idowu (2003). "The Supply and Demand for Loanable Funds in Contemporary Economic Policy Issues". Ed. O.J. Nnnana *et al.*, Central Bank of Nigeria.

Demirguckunt, A and Detragiache, E. (1998). "Financial Liberalization and Financial Fragility", in proceeding of the Annual Bank Conference in Development Economics, Washington D.C., World Bank.

(d) **Text Books:** The citation should be as follows:

Author's last name, first name, and middle initial, year of publication, "Title of the book", Name of the Publisher, Year and Or Chapter No. For example:

Bamanga, M.A. and M.I. Abdulkarim (2007). A First Course in University Statistics. Ahmadu Bello University Press, Zaria, Nigeria.

### **Policies Regarding Number Usage for the CBN Journal of Applied Statistics**

A summary of the number style policies is as follows:

- All cardinal numbers are written as numerals except when they begin a sentence or appear in a title, when 2 numerals are adjacent in a sentence (spell out the number most easily expressed in words).
- Numbers less than 1 are written with a preceding (leading) zero (e.g., 0.75).
- A comma separator is used in numbers greater than 999.
- Numerals should be used to designate ratios and multiplication factors (e.g., 2:1, 3-fold increase).
- Single-digit ordinals are spelled out (i.e., first through ninth); larger ordinals are expressed in numeric form. Single-digit ordinals may be expressed numerically when they form part of a series (e.g., 1<sup>st</sup>, 3<sup>rd</sup>, 10<sup>th</sup>, 20<sup>th</sup>, not first, third, 10th, 20th).