

# Journal of Asian Finance, Economics and Business

## JAFEB

### Peer-Reviewed

Journal of Asian Finance, Economics and Business  
Copyright © 2014, Inderscience Ltd  
ISSN 2043-7823

Volume 1 Number 1 February 2014  
Pages 1-100

Editorial Board  
Editor: [editor@jafeb.com](mailto:editor@jafeb.com)  
Editorial Board: [editorialboard@jafeb.com](mailto:editorialboard@jafeb.com)

Editorial Board  
Editor: [editor@jafeb.com](mailto:editor@jafeb.com)  
Editorial Board: [editorialboard@jafeb.com](mailto:editorialboard@jafeb.com)

### Editorial Board

Editor: [editor@jafeb.com](mailto:editor@jafeb.com)  
Editorial Board: [editorialboard@jafeb.com](mailto:editorialboard@jafeb.com)

Copyright © 2014

# Journal of Asian Finance, Economics and Business

<b>Country</b>	South Korea -  SIR Ranking of South Korea
<b>Subject Area and Category</b>	<a href="#">Business, Management and Accounting</a> <a href="#">Management Information Systems</a>  <a href="#">Economics, Econometrics and Finance</a> <a href="#">Economics and Econometrics</a> <a href="#">Finance</a>

# 3

H Index

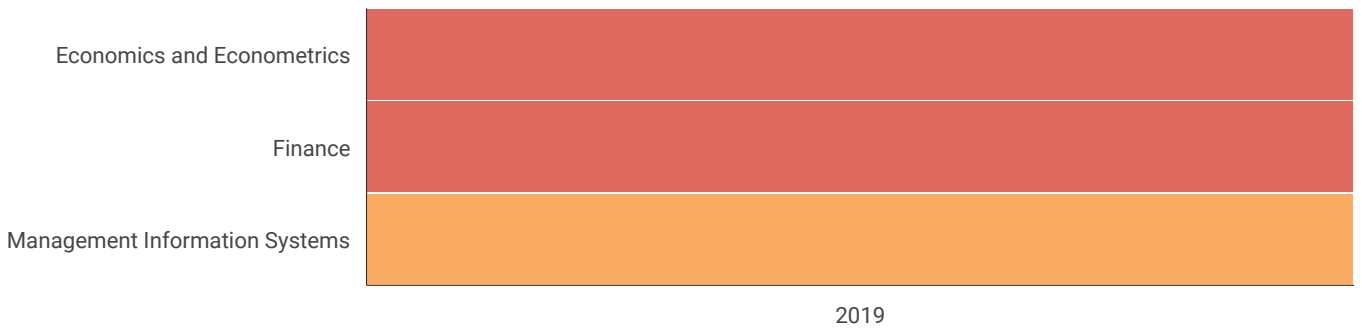
<b>Publisher</b>	Korea Distribution Science Association (KODISA)
<b>Publication type</b>	Journals
<b>ISSN</b>	22884645, 22884637
<b>Coverage</b>	2018-2020

**Scope** The Journal of Asian Finance, Economics and Business (JAFEB) publishes original research analysis and inquiry into issues of Asian Finance, Economics and Business Management. The JAFEB is an international peer-reviewed journal, which is devoted to contemporary issues of finance, economics and business in Asia, including Central Asia, East Asia, South Asia, Southeast Asia, and Middle East.

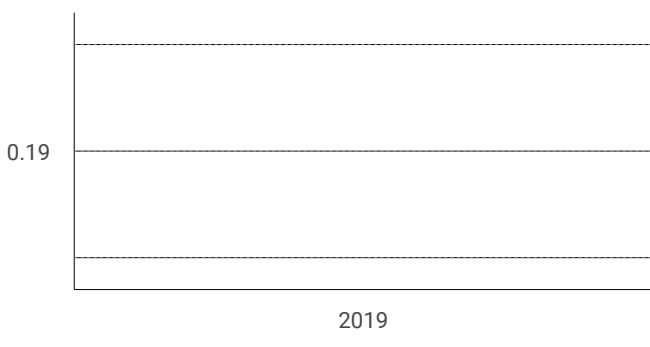

[Homepage](#)
[How to publish in this journal](#)
[Contact](#)

[Join the conversation about this journal](#)

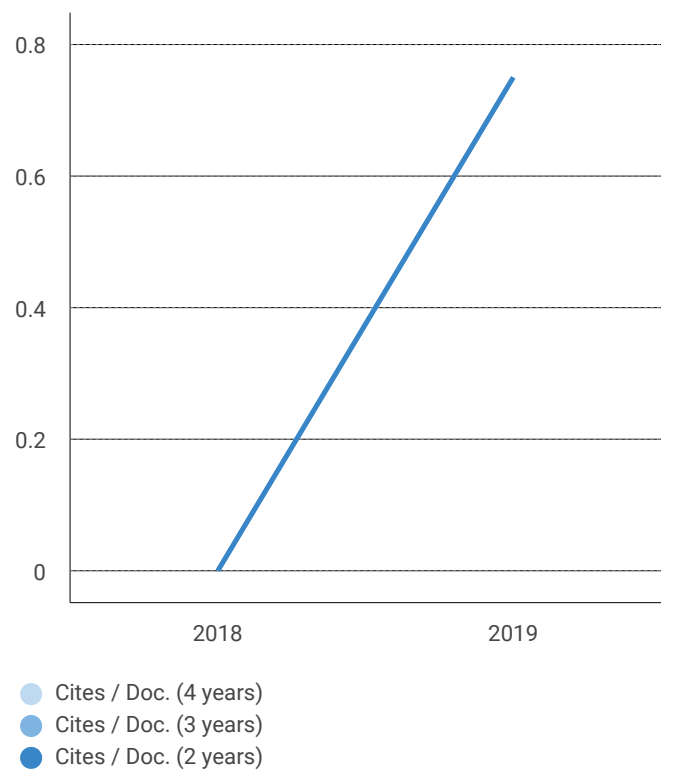
### Quartiles



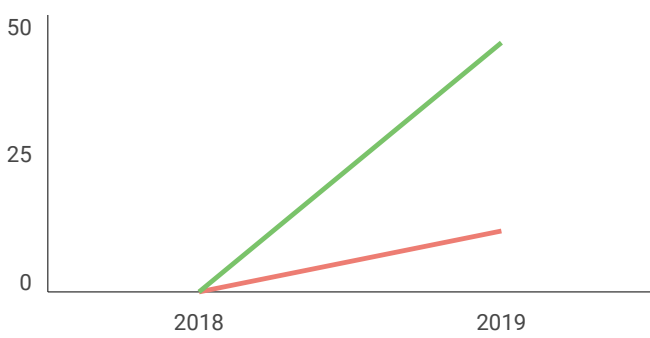
### SJR



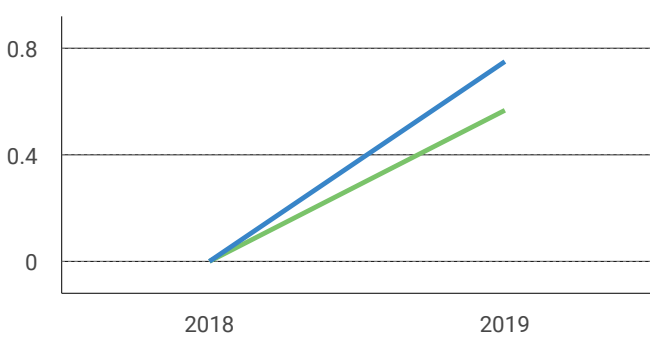
### Citations per document



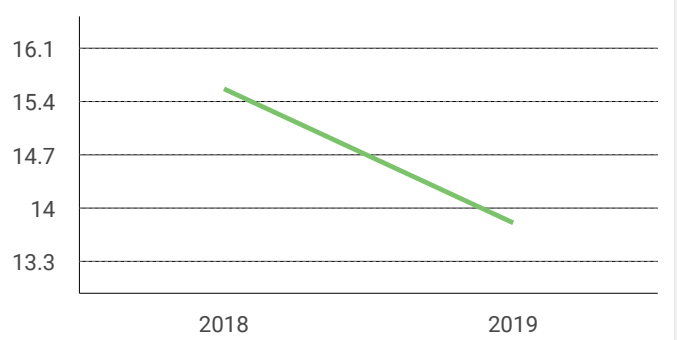
### Total Cites Self-Cites



### External Cites per Doc Cites per Doc



### % International Collaboration



### Citable documents Non-citable documents



### Cited documents Uncited documents



**Journal of Asian Finance,  
Economics and Business**



← Show this widget in your own website

Just copy the code below and paste within your html code:

```
<a href="https://www.scimagojr.com" data-bbox="303 198 479 213">
```

S

**Sunny** 1 week ago

I would like to ask whether this journal in the list of ISI journals or not?

← reply



**Melanie Ortiz** 1 week ago

SCImago Team

Dear Sunny,

Thank you for contacting us.

SJR is a portal with scientometric indicators of journals indexed in Elsevier/Scopus. Unfortunately, we cannot help you with your request referring to the index status. We suggest you consult Scopus database (see the current status of the journal) or the mentioned database for further information. You can also check that information in the journal's website or contact directly with the editorial staff.

Best Regards, SCImago Team

R

**Rizal Bakri** 3 weeks ago

I see the quartil of this journal in scopus source is Q4 for all category. Why this journal have Q3 in scimago version?

← reply



**Melanie Ortiz** 2 weeks ago

SCImago Team



## *The Journal of Asian Finance, Economics and Business*

*Frequency : Monthly (Twelve issues per year from 2020 onwards)*

*Language: English*

*ISSN: 2288-4637 (Print) 2288-4645 (Online)*

*Year of Launching : 2014*

*Publisher : Korea Distribution Science Association*

*Indexed/Tracked/Covered By :*

*Clarivate Analytics' Web of Science - Emerging Sources Citation Index (ESCI) in Web of Science Core Collection, Elsevier 's SCOPUS in Elsevier Product(s), Crossref - Digital Object Identifier (DOI), Directory of Open Access Journals (DOAJ), Cabell's Directories of Publishing Opportunities, EconBiz, ECONIS - Datenbank der ZBW, Publons, WorldCat, Scilit - MDPI (Basel, Switzerland), Directory of Korea Open Access Journals (KOAJ), Korea Citation Index (KCI) - The National Research Foundation of Korea (NRF).*



Scopus®



DOAJ DIRECTORY OF  
OPEN ACCESS  
JOURNALS

## On-line Submission

The Journal of Asian Finance,  
Economics and Business

### About Us +

- ⋮ Aims and Scope
- ⋮ Editorial Board
- ⋮ Review Policy

### For Contributors +

- ⋮ Guide For Authors
- ⋮ Ethical Guideline
- ⋮ Open Access Policy

### Journal Search +

- ⋮ Most read Article
- ⋮ Current Issue
- ⋮ Archive

The Journal of  
Distribution Science

Journal of Industrial  
Distribution & Business

The Journal of Business, Economics  
and Environmental Studies

The Journal of Asian Finance,  
Economics and Business

ICBE2020

Jeju City, South Korea, November 25-27, 2020

Korean Distribution Science Association



## Editorial Board

### Editorial Board

Senior Editor-in-Chief	Jung Wan Lee, Ph.D. School of International Economics and Trade Anhui University of Finance and Economics, China
Editor for Southeast Asia	Hooi Hooi Lean, Ph.D. School of Social Sciences Universiti Sains Malaysia, Malaysia
Editor for East Asia	Teng-Tsai Tu, Ph.D. Graduate Institute of International Business National Taipei University, Taiwan
Editor for Central Asia	Azimkhan A. Satybaldin, Ph.D. The Institute of Economics under the Ministry of Education and Science Republic of Kazakhstan
English Editor	Jean-Luc Renaud, Ph.D. Professor of Mass Communication and Globalization, Linton School of Global Business Hannam University, Korea (the Republic of)
Publishing Editor	Myoung-Kil Youn, Ph.D. Department of Medical IT Marketing, College of Health Industry Eulji University, Korea (the Republic of)
Associate Editors	D. Tripathi Rao, Ph.D. Professor of Economics, Business Environment Area Indian Institute of Management Lucknow, India  Wee-Yeap Lau, Ph.D. Department of Applied Statistics, Faculty of Economics and Administration University of Malaya, Malaysia  Moh'd Mahmoud Ajlouni, Ph.D. Department of Banking and Finance, Faculty of Economics Yarmouk University, Jordan  Anel A. Kireyeva, Ph.D. The Institute of Economics under the Ministry of Education and Science Republic of Kazakhstan  Nailya K. Nurlanova, Ph.D. The Institute of Economics under the Ministry of Education and Science Republic of Kazakhstan  Jung-Lieh Hsiao, Ph.D. Graduate Institute of International Business National Taipei University, Taiwan  Jooh Lee, Ph.D. Department of Management & Entrepreneurship, College of Business Rowan University, USA  Rajasekhara Mouly Potluri, Ph.D. College of Business Studies Al Ghurair University, Dubai, United Arab Emirates  Muhammad Ayub Siddiqui, Ph.D. Bahria Institute of Management and Computer Sciences Bahria University, Pakistan

	<p>Tahereh Alavi Hojjat, Ph.D. Professor of Economics &amp; Finance, Division of Business DeSales University, USA</p> <p>Tantatape Brahmarsene, Ph.D. Professor of Finance and International Business, College of Business Purdue University Northwest, USA</p>
Ad Hoc Associate Editors	<p>Helena M. Nobre, Ph.D. DEGEIT – Economics, Management, Industrial Engineering and Tourism, GOVCOPP, University of Aveiro, Portugal</p> <p>Yuliani Dwi Lestari, Ph.D. Professor, School of Business and Management, Institut Teknologi Bandung, Indonesia</p> <p>Nguyen Xuan Truong, Ph.D. Professor, Faculty of Marketing, University of Finance – Marketing, Ho Chi Minh City, Vietnam</p> <p>Soo-Joon Chae, Ph.D. Division of Business Administration and Accounting, Kangwon National University, South Korea</p> <p>Nguyen Ngoc Duy Phuong, Ph.D. Professor, International University, Vietnam National University, Ho Chi Minh City, Vietnam</p> <p>Jarunee Wonglimpiyarat, Ph.D. Department of Aeronautics and Astronautics Massachusetts Institute of Technology, USA</p> <p>Yu Hsing, Ph.D. Joseph H. Miller Endowed Professor. Department of Management &amp; Business Administration, College of Business, Southeastern Louisiana University, USA.</p> <p>Yoon S. Shin, Ph.D. Department of Finance, The Sellinger School of Business and Management, Loyola University, Maryland, USA</p> <p>Ayşe Yüce, Ph.D. Professor of Finance. Department of Finance, Ted Rogers School of Management, Ryerson University. Toronto, Canada</p>

PUBLISHER: KOREA DISTRIBUTION SCIENCE ASSOCIATION (KODISA) [POSTAL ADDRESS: HANSHIN OFFICETEL STE 1030, 2463-4 SHINHEUNG-DONG SUJEONG-GU, SEONGNAM, GYEONGGI, SOUTH KOREA, 461-7113] TEL: +82-31-740-7292 FAX: +82-31-740-7361  
 EDITORIAL HEAD OFFICE: ANHUI UNIVERSITY OF FINANCE AND ECONOMICS (AUFE) SCHOOL OF INTERNATIONAL ECONOMICS AND TRADE, CHINA [POSTAL ADDRESS: 962 CAOSHAN ROAD, BENGBU CITY, ANHUI PROVINCE, CHINA, 233030]  
 EDITOR-IN-CHIEF: PROFESSOR LEE, JUNG WAN EMAIL: JWLEE119@YAHOO.COM or JUNGWAN.LEE@AUFE.EDU.CN

© Copyright: The Author(s)

This is an Open Access journal distributed under the terms of the Creative Commons Attribution Non-Commercial License (<https://creativecommons.org/licenses/by-nc/4.0/>) which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

## On-line Submission

The Journal of Asian Finance,  
Economics and Business

### About Us +

- ⋮ Aims and Scope
- ⋮ Editorial Board
- ⋮ Review Policy

### For Contributors +

- ⋮ Guide For Authors
- ⋮ Ethical Guideline
- ⋮ Open Access Policy

### Journal Search +

- ⋮ Most read Article
- ⋮ Current Issue
- ⋮ Archive

The Journal of  
Distribution Science

Journal of Industrial  
Distribution & Business

The Journal of Business, Economics  
and Environmental Studies

The Journal of Asian Finance,  
Economics and Business

ICBE2020

Jeju City, South Korea, November 25-27, 2020

Korean Distribution Science Association



## Review Policy

### REVIEW POLICY

KODISA Journals have adopted a double blind reviewing policy, where both the referee and author remain anonymous throughout the process. Please remove all identifying features from the main document itself, ensuring that Authors' identity is not revealed.

However, this does not preclude Authors from citing their own works. However, Authors must cite their works in a manner that does not make explicit their identity.

Acceptable: "Lee (2013) has indicated that . . ."

Acceptable: "Some scholars have indicated that . . . (e.g., Lee, 2013; Youn & Lee, 2018)"

KODISA Journals operate a double blind review process. All contributions will be initially assessed by the Editor-in-Chief for suitability for the journal. Papers deemed suitable are then typically sent to a minimum of two independent expert reviewers to assess the scientific quality of the paper. The Editor-in-Chief is responsible for the final decision regarding acceptance or rejection of articles. The Editor-in-Chief's decision is final.

### DOUBLE-BLIND PEER REVIEW

KODISA Journals use a double-blind review, which means the identities of the authors are concealed from the reviewers, and vice versa. To facilitate this, please include the following separately:

Title page (with author details): This should include the title, authors' names, affiliations, acknowledgements and any Declaration of Interest statement, and a complete address for the corresponding author including an e-mail address.

Main document (without author details): The main body of the paper (including the references, figures, tables and any acknowledgements) should not include any identifying information, such as the authors' names or affiliations.

Both the reviewer and the author are anonymous in this model. Some advantages of this model are listed below.

- Author anonymity limits reviewer bias, for example based on an author's gender, country of origin, academic status or previous publication history.
- Articles written by prestigious or renowned authors are considered on the basis of the content of their papers, rather than their reputation.
- Bear in mind that despite the above, reviewers can often identify the author through their writing style, subject matter or self-citation – it is exceedingly difficult to guarantee total author anonymity. The reviewers of KODISA Journals exemplify best practices in a given review situation.

### THE PEER REVIEW PROCESS

The peer review process can be broadly summarized into 8 steps, although these steps can vary slightly between KODISA Journals. See below.

#### 1. Submission of Paper

The corresponding or submitting author submits the paper to the journal. For Korean contributors, this is usually via an online system such as JAMS or ACOMS. For international scholars/contributors, KODISA Journals accept submissions by email, which is indicated on the submission information.

#### 2. Editorial Office Assessment

The journal checks the paper's composition and arrangement against the journal's Author Guidelines to make sure it includes the required sections and stylizations. The quality of the paper is not assessed at this point.

#### 3. Appraisal by the Editor-in-Chief

The Editor-in-Chief checks that the paper is appropriate for the journal and is sufficiently original and interesting. If not, the paper may be rejected without being reviewed any further.

#### 4. Invitation to Reviewers

The Editor-in-Chief sends invitations to individuals he or she believes would be appropriate reviewers. As responses are received, further invitations are issued, if necessary, until the required number of acceptances is obtained – commonly this is 3, but there is some variation between journals.

#### 5. Review is Conducted

The reviewer sets time aside to read the paper several times. The first read is used to form an initial impression of the work. If major



problems are found at this stage, the reviewer may feel comfortable rejecting the paper without further work. Otherwise they will read the paper several more times, taking notes so as to build a detailed point-by-point review. The review is then submitted to the journal, with a recommendation to accept or reject it – or else with a request for revision (usually flagged as either major or minor) before it is reconsidered.

#### 6. Journal Evaluates the Reviews

The Editor-in-Chief considers all the returned reviews before making an overall decision. If the reviews differ widely, the Editor-in-Chief may invite an additional reviewer so as to get an extra opinion before making a decision.

#### 7. The Decision is Communicated

The Editor-in-Chief sends a decision email to the author including any relevant reviewer comments. Whether the comments are anonymous or not will depend on the type of peer review that the journal operates.

#### 8. Last Steps

If accepted, the paper is sent to production. If the article is *rejected* or sent back for either major or minor *revision*, the Editor-in-Chief may include constructive comments from the reviewers to help the author improve the article. At this point, reviewers should also be sent an email or letter letting them know the outcome of their review. If the paper was sent back for *revision*, the reviewers should expect to receive a new version, unless they have opted out of further participation. However, where only minor changes were requested this follow-up review might be done by the Editor-in-Chief.



#### COPE ETHICAL GUIDELINES FOR PEER REVIEWERS

KODISA Journals provide membership of the Committee on Publication Ethics (COPE) as an option for all of its journal editors. COPE has developed Ethical Guidelines for Peer Reviewers, to which Editors and their editorial boards can refer for guidance. Read the COPE guidelines below or visit their website to download the PDF.

Peer reviewers play a role in ensuring the integrity of the scholarly record. The peer review process depends to a large extent on the trust and willing participation of the scholarly community and requires that everyone involved behaves responsibly and ethically. Peer reviewers play a central and critical part in the peer review process, but may come to the role without any guidance and be unaware of their ethical obligations. Journals have an obligation to provide transparent policies for peer review, and reviewers have an obligation to conduct reviews in an ethical and accountable manner. Clear communication between the journal and the reviewers is essential to facilitate consistent, fair and timely review. COPE has heard cases from its members related to peer review issues and bases these guidelines, in part, on the collective experience and wisdom of the COPE Forum participants. It is hoped they will provide helpful guidance to researchers, be a reference for editors and publishers in guiding their reviewers, and act as an educational resource for institutions in training their students and researchers.

Peer review, for the purposes of these guidelines, refers to reviews provided on manuscript submissions to journals, but can also

include reviews for other platforms and apply to public commenting that can occur pre- or post-publication. Reviews of other materials such as preprints, grants, books, conference proceeding submissions, registered reports (preregistered protocols), or data will have a similar underlying ethical framework, but the process will vary depending on the source material and the type of review requested. The model of peer review will also influence elements of the process.

#### FINAL CHECK-LIST BEFORE SUBMISSION

Please ensure that:

- Manuscript has been 'spell checked' and 'grammar checked'
- Note that submitted manuscripts will not go through language-focused copy editing with the journal prior to or after acceptance; language-focused copy editing is the responsibility of the authors prior to submission
- Please prepare the manuscript for blind review; whenever possible, please use author names and references for self-citations but make sure that you use third person to discuss the work (see "Review Policy" above)
- All references mentioned in the Reference List are cited in the text, and vice versa
- Permission has been obtained for use of copyrighted material from other sources (including the Internet)
- A competing interests statement is provided, even if the authors have no competing interests to declare
- Journal policies detailed in this guide have been reviewed

#### Submission Declaration

Submission of an article implies that the work described has not been published previously (except in the form of an abstract or as part of a published lecture or academic thesis), that it is not under consideration for publication elsewhere, that its publication is approved by all authors and tacitly or explicitly by the responsible authorities where the work was carried out, and that, if accepted, it will not be published elsewhere including electronically in the same form, in English or in any other language, without the written consent of the copyright-holder. In instances where authors prepare multiple submissions using the same dataset or use partially overlapping variables in two or more articles, this needs to be declared upfront in the letter to the editor. Masked reference(s) to previous studies based on the same dataset need to be included in the manuscript itself so the reader can understand the novelty of new study in relation to the previous articles. Please consult the APA-manual on piecemeal publications. In cases where the manuscript is part of a larger project (e.g., prospective longitudinal study, an intervention study with numerous arms, etc.) in which other partly overlapping publications already exist, or are planned in parallel to the submitted manuscript, need to be declared in the accompanying letter to the Editor-in-Chief. Authors are asked to be upfront declaring such manuscripts. A manuscript may be returned if the degree of overlap is found to be too large.

KODISA Journals are committed to upholding the highest standards of publication ethics and takes all possible measures against any publication malpractices. All authors submitting their works to the journal for publication as original articles attest that the submitted works represent their authors' contributions and have not been copied or plagiarized in whole or in part from other works. The Similarity Check process can be broadly employed by use of CrossCheck software, although these steps can vary slightly between KODISA Journals.

For example, per JAFEB "Code of Ethics" authors are expected to adhere to the guidelines outlined: JAFEB may consider submitted manuscripts for possible publication only if the following two conditions are satisfactory: *(1) a maximum overall acceptable similarity index must be less than 25 % (< 25% in total), excluding the citations and references and the bibliography. (2) a maximum acceptable similarity index from any single source must be less than 2 % (< 2% per source).*

#### SUBMISSION-REVIEW-ACCEPTANCE-PRODUCTION-PUBLICATION-INDEXING PROCESS

The submission-review-acceptance-publication process can be broadly summarized into 7 steps, although these steps can vary slightly between KODISA Journals. See below.

##### Step 1: Desk Editor's decision on the article submitted

For example, check Submission Consent Form, APC agreement, APA style format, Publication Ethics and Publication Malpractice, and CrossCheck screening: the iThenticate software to detect instances of overlapping and similar text in submitted manuscripts. Authors can be assured that KODISA Journals are committed to actively combating plagiarism and publishing original research.

[Editorial Board and Selection Policy: Please note that Editorial Board of the KODISA Journals will be very selective, accepting only the articles on the basis of scholarly merit, research significance, research integrity and compliance with the journal style guidelines (APA). KODISA Journals and Editorial Board respect and promote all authors and contributors on the basis of research ability and experience without considering race, citizenship, or any of narrow frames of reference.]

##### Step 2: External Reviewers Board's decision on scholarly merits of the content of the article.

If the article successfully passes the requirements of submission and the first round of screening and Plagiarism checking, then the paper goes to external reviews, which will take another 2 to 8 weeks from then.

[Important: After the external reviews completed if the paper gets accepted in favor of publication on the journal then an invoice of APC will be followed. Based on an invoice the author should make a payment for APC. Before the paper finally gets accepted any payment does not count any credit toward its acceptance for publication.]

##### Step 3: Editorial Copy Editor's decision on editorial copy editing

For example, double check citations in text and references, tables and figures, heading and subheadings, etc. If the article finally gets accepted for publication and the author has paid APC for their publication on the journal, then the paper goes to Copy Editor and Typesetter, which will take another 2 to 4 weeks from then.

**Step 4: Production Editor's decision on the full information of the article**

For example, check DOI number, authors' name, affiliation, contact information, pagination, etc. If the article has been checked and edited by Copy Editor and Typesetter and then finally has approved for Production and Printing, then the paper goes to Production Editor, which will take another 2 to 4 weeks from then.

**Step 5: Printing Editor's decision on printed hard copies**

For example, check mailing address of printed hard copies to the authors. This process takes another 2 to 4 weeks from then.

**Step 6: Online Publishing Editor's decision on online XML (HTML) and PDF attachments.**

This process takes another 2 to 4 weeks from then.

**Step 7: Indexing Editor's decision on Web of Science indexing and Scopus indexing.**

This process takes another 2 to 8 weeks from then, although these steps can vary slightly between indexing agencies.

Overall, it takes at least 2 to 10 weeks from submission to acceptance. In addition, it takes at least another 4 to 10 weeks from APC payment to online DOI publication. Then, it takes at least another 4 to 10 weeks from online DOI publication to having indexed on Web of Science and Scopus. For example, due to an increasing number of submissions since 2018 and a limit of publication space in each journal, the average overall time from submission to publication and print from now on takes 3–6 months. KODISA Journals accept submissions on a rolling basis, and publish accepted articles on the first-in first-out method.

PUBLISHER: KOREA DISTRIBUTION SCIENCE ASSOCIATION (KODISA) [POSTAL ADDRESS: HANSHIN OFFICETEL STE 1030, 2463-4 SHINHEUNG-DONG SUJEONG-GU, SEONGNAM, GYEONGGI, SOUTH KOREA, 461-713] TEL: +82-31-740-7292 FAX: +82-31-740-7361  
EDITORIAL HEAD OFFICE: ANHUI UNIVERSITY OF FINANCE AND ECONOMICS (AUFE) SCHOOL OF INTERNATIONAL ECONOMICS AND TRADE, CHINA [POSTAL ADDRESS: 962 CAOSHAN ROAD, BENGBU CITY, ANHUI PROVINCE, CHINA, 233030]  
EDITOR-IN-CHIEF: PROFESSOR LEE, JUNG WAN EMAIL: JWLEE119@YAHOO.COM or JUNGWAN.LEE@AUFE.EDU.CN

© Copyright: The Author(s)

This is an Open Access journal distributed under the terms of the Creative Commons Attribution Non-Commercial License (<https://creativecommons.org/licenses/by-nc/4.0/>) which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

Search[HOME](#)[Contact Us](#)

## On-line Submission

The Journal of Asian Finance,  
Economics and Business

[About Us +](#)[For Contributors +](#)[Journal Search +](#)[Most read Article](#)[Current Issue](#)[Archive](#)[2020](#)[Vol.7 No.8](#)[Vol.7 No.7](#)[Vol.7 No.6](#)[Vol.7 No.5](#)[Vol.7 No.4](#)[Vol.7 No.3](#)[Vol.7 No.2](#)[Vol.7 No.1](#)[2019](#)[2018](#)[2017](#)[2016](#)[2015](#)[2014](#)

The Journal of  
Distribution Science

Journal of Industrial  
Distribution & Business

The Journal of Business, Economics  
and Environmental Studies

The Journal of Asian Finance,  
Economics and Business

## ICBE2020

Jeju City, South Korea, November 25-27, 2020

Korean Distribution Science Association

 **Crossref**  
Similarity Check  
Powered by iThenticate

 **NRF 한국연구재단**  
National Research Foundation of Korea

 **Crossref**

## Journal Search Engine

Volume/Issue :  Volume  IssueYear(s) :  2014  to  presentSearch :  Title  Author  Keyword [Adobe Reader\(link\)](#)

## Volume.7 No.8 August 2020

### Revisiting Managerial Ownership and Firm Value in the Absence of Market Forces: Evidence from Singapore and Thailand

Sirapat POLWITOON, Oranee TAWATNUNTACHAI

The Journal of Asian Finance, Economics and Business :: Vol.7 No.8 pp.1-13

DOI:https://doi.org/10.13106/jafeb.2020.vol7.no8.001

[Open abstract](#)

### Mediating Role of Liquidity Policy on the Corporate Governance-Performance Link: Evidence from Pakistan

Safdar Husain TAHIR, Muhammad Abu Bakar SADIQUE, Nausheen SYED, Faiza REHMAN, Muhammad Rizwan ULLAH

The Journal of Asian Finance, Economics and Business :: Vol.7 No.8 pp.15-23

DOI:https://doi.org/10.13106/jafeb.2020.vol7.no8.015

[Open abstract](#)

### Return Premium of Financial Distress and Negative Book Value: Emerging Market Case

Yosuke KAKINUMA

The Journal of Asian Finance, Economics and Business :: Vol.7 No.8 pp.25-31

DOI:https://doi.org/10.13106/jafeb.2020.vol7.no8.025

[Open abstract](#)

### An Empirical Testing of a House Pricing Model in the Indian Market

Najmul HODA, Syed Ashraf JAFRI, Naim AHMAD, Syed Mannawar HUSSAIN

The Journal of Asian Finance, Economics and Business :: Vol.7 No.8 pp.33-40

DOI:https://doi.org/10.13106/jafeb.2020.vol7.no8.033

[Open abstract](#)

### Capturing the Short-run and Long-run Causal Behavior of Philippine Stock Market Volatility under Vector Error Correction Environment

Abraham C. CAMBA

The Journal of Asian Finance, Economics and Business :: Vol.7 No.8 pp.41-49

DOI:https://doi.org/10.13106/jafeb.2020.vol7.no8.041

[Open abstract](#)

### The Impact of Index Future Introduction on Spot Market Returns and Trading Volume: Evidence from Ho Chi Minh Stock Exchange

Anh Thi Kim NGUYEN, Loc Dong TRUONG

The Journal of Asian Finance, Economics and Business :: Vol.7 No.8 pp.51-59

DOI:https://doi.org/10.13106/jafeb.2020.vol7.no8.051

[Open abstract](#)

### Risk Management Functions and Audit Report Lag among Listed Saudi Manufacturing Companies

Waddah Kamal Hassan OMER, Khaled Salmen ALJAAIDI, Ehsan Saleh AL-MOATAZ

The Journal of Asian Finance, Economics and Business :: Vol.7 No.8 pp.61-67  
DOI:https://doi.org/10.13106/jafeb.2020.vol7.no8.061  
[Open abstract](#)

[Download pdf](#)

[Export Citation](#)

### **Lagged Effects of R&D Investment on Corporate Market Value: Evidence from Manufacturing Firms Listed in Chinese Stock Markets**

**Jung Wan LEE**

The Journal of Asian Finance, Economics and Business :: Vol.7 No.8 pp.69-76  
DOI:https://doi.org/10.13106/jafeb.2020.vol7.no8.069  
[Open abstract](#)

[Download pdf](#)

[Export Citation](#)

### **The Impact of Contingency Factors on Management Accounting Practices in Vietnam**

**Duc Hieu PHAM,Thi Huong DAO,Tien Dung BUI**

The Journal of Asian Finance, Economics and Business :: Vol.7 No.8 pp.77-85  
DOI:https://doi.org/10.13106/jafeb.2020.vol7.no8.077  
[Open abstract](#)

[Download pdf](#)

[Export Citation](#)

### **The Impact of Methods of Presenting Cash Flow Statement on Loan Decision: Evidence from Vietnam**

**Dung Duc NGUYEN**

The Journal of Asian Finance, Economics and Business :: Vol.7 No.8 pp.87-94  
DOI:https://doi.org/10.13106/jafeb.2020.vol7.no8.087  
[Open abstract](#)

[Download pdf](#)

[Export Citation](#)

### **Entrenchment Effect and Audit Quality in Family Business of Pakistan**

**Safdar Husain TAHIR,Sadaf AKRAM,Shahida PERVEEN,Gulzar AHMAD,Muhammad Rizwan ULLAH**

The Journal of Asian Finance, Economics and Business :: Vol.7 No.8 pp.95-102  
DOI:https://doi.org/10.13106/jafeb.2020.vol7.no8.095  
[Open abstract](#)

[Download pdf](#)

[Export Citation](#)

### **The Factors Affecting Corporate Income Tax Non-Compliance: A Case Study in Vietnam**

**Loan Thi NGUYEN,Anh Hong Viet NGUYEN,Hac Dinh LE,Anh Hoang LE,Tu Tuan Vu TRUONG**

The Journal of Asian Finance, Economics and Business :: Vol.7 No.8 pp.103-115  
DOI:https://doi.org/10.13106/jafeb.2020.vol7.no8.103  
[Open abstract](#)

[Download pdf](#)

[Export Citation](#)

### **How Indonesia Economics Works: Correlation Analysis of Macroeconomics in 2010 - 2019**

**Fahrudin Zain OLILINGO,Aditya Halim Perdana Kusuma PUTRA**

The Journal of Asian Finance, Economics and Business :: Vol.7 No.8 pp.117-130  
DOI:https://doi.org/10.13106/jafeb.2020.vol7.no8.117  
[Open abstract](#)

[Download pdf](#)

[Export Citation](#)

### **The Impact of China Exchange Rate Policy on its Trading Partners: Evidence Based on the GVAR Model**

**Shah ABBAS, Van Chien NGUYEN,Zhu YANFU,Huu Tinh NGUYEN**

The Journal of Asian Finance, Economics and Business :: Vol.7 No.8 pp.131-141  
DOI:https://doi.org/10.13106/jafeb.2020.vol7.no8.131  
[Open abstract](#)

[Download pdf](#)

[Export Citation](#)

### **The Impacts of Oil Price and Exchange Rate on Vietnamese Stock Market**

**Tra Ngoc NGUYEN,Dat Thanh NGUYEN,Vu Ngoc NGUYEN**

The Journal of Asian Finance, Economics and Business :: Vol.7 No.8 pp.143-150  
DOI:https://doi.org/10.13106/jafeb.2020.vol7.no8.143  
[Open abstract](#)

[Download pdf](#)

[Export Citation](#)

### **Socio-Economic Factors and Rural Competitive Advantage: The Moderating Role of Economic Literacy**

**Hendra RUSTANTONO,Budi Eko SOETJIPTO,Wahjoedi WAHJOEDI,Sunaryanto SUNARYANTO**

The Journal of Asian Finance, Economics and Business :: Vol.7 No.8 pp.151-159  
DOI:https://doi.org/10.13106/jafeb.2020.vol7.no8.151  
[Open abstract](#)

[Download pdf](#)

[Export Citation](#)

### **How Does Financial Development Impact Economic Growth in Pakistan?: New Evidence from Threshold Model**

**Rameez TARIQ,Muhammad Arshad KHAN,Abdul RAHMAN**

The Journal of Asian Finance, Economics and Business :: Vol.7 No.8 pp.161-173  
DOI:https://doi.org/10.13106/jafeb.2020.vol7.no8.161

[Download pdf](#)

[Export Citation](#)

[▶ Open abstract](#)

### **Trade of ICT Products, Government, and Economic Growth: Evidence from East Asia-Pacific Region**

Lien Phuong NGUYEN, Van Hong Thi PHAM

The Journal of Asian Finance, Economics and Business :: Vol.7 No.8 pp.175-183

DOI: <https://doi.org/10.13106/jafeb.2020.vol7.no8.175>

[Download pdf](#)

[Export Citation](#)

[▶ Open abstract](#)

### **Country-Level Governance Quality and Stock Market Performance of GCC Countries**

Kennedy Prince MODUGU, Juan DEMPERE

The Journal of Asian Finance, Economics and Business :: Vol.7 No.8 pp.185-195

DOI: <https://doi.org/10.13106/jafeb.2020.vol7.no8.185>

[Download pdf](#)

[Export Citation](#)

[▶ Open abstract](#)

### **Critical Factors Affecting Construction Price Index: An Integrated Fuzzy Logic and Analytical Hierarchy Process**

Phong Thanh NGUYEN, Quyen Le Hoang Thuy To NGUYEN

The Journal of Asian Finance, Economics and Business :: Vol.7 No.8 pp.197-204

DOI: <https://doi.org/10.13106/jafeb.2020.vol7.no8.197>

[Download pdf](#)

[Export Citation](#)

[▶ Open abstract](#)

PUBLISHER: KOREA DISTRIBUTION SCIENCE ASSOCIATION (KODISA) [POSTAL ADDRESS: HANSHIN OFFICETEL STE 1030, 2463-4 SHINHEUNG-DONG SUJEONG-GU, SEONGNAM, GYEONGGI, SOUTH KOREA, 461-713] TEL: +82-31-740-7292 FAX: +82-31-740-7361  
EDITORIAL HEAD OFFICE: ANHUI UNIVERSITY OF FINANCE AND ECONOMICS (AUFE) SCHOOL OF INTERNATIONAL ECONOMICS AND TRADE, CHINA [POSTAL ADDRESS: 962 CAOSHAN ROAD, BENGBU CITY, ANHUI PROVINCE, CHINA, 233030]  
EDITOR-IN-CHIEF: PROFESSOR LEE, JUNG WAN EMAIL: JWLEE119@YAHOO.COM or JUNGWAN.LEE@AUFE.EDU.CN

© Copyright: The Author(s)

This is an Open Access journal distributed under the terms of the Creative Commons Attribution Non-Commercial License (<https://creativecommons.org/licenses/by-nc/4.0/>) which permits unrestricted non-commercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

Search[HOME](#)[Contact Us](#)

## On-line Submission

The Journal of Asian Finance,  
Economics and Business

### About Us +

- Aims and Scope
- Editorial Board
- Review Policy

### For Contributors +

### Journal Search +

- Most read Article
- Current Issue
- Archive
  - 2020
    - Vol.7 No.8
    - Vol.7 No.7
    - Vol.7 No.6
    - Vol.7 No.5
    - Vol.7 No.4
    - Vol.7 No.3
    - Vol.7 No.2
    - Vol.7 No.1
  - 2019
  - 2018
  - 2017
  - 2016
  - 2015
  - 2014

## Journal Search Engine

Volume/Issue :  Volume  Issue

Year(s) :  2014  to  present

Search :  Title  Author  Keyword

[Download pdf](#) [Export Citation](#) [Korean bibliography](#)

The Journal of Asian Finance, Economics and Business Vol.7 No.8 pp.117-130  
DOI : <https://doi.org/10.13106/jafeb.2020.vol7.no8.117>

ISSN : 2288-4637(Print)  
ISSN : 2288-4645(Online)

## How Indonesia Economics Works: Correlation Analysis of Macroeconomics in 2010 - 2019

Fahrudin Zain OLILINGO<sup>1</sup>, Aditya Halim Perdana Kusuma PUTRA<sup>2</sup>

<sup>2</sup> Assistant Professor, Department of Management, Faculty of Economics and Business, Universitas Muslim Indonesia, Makassar, Indonesia.  
Email: [adityatrojhan@gmail.com](mailto:adityatrojhan@gmail.com)

© Copyright: The Author(s)

This is an Open Access article distributed under the terms of the Creative Commons Attribution Non-Commercial License (<http://creativecommons.org/licenses/by-nc/4.0/>) which permits unrestricted noncommercial use, distribution, and reproduction in any medium, provided the original work is properly cited.

<sup>1</sup> First Author and Corresponding Author. Associate Professor, Department of Economics Development Studies, Faculty of Economics, Universitas Negeri Gorontalo, Indonesia [Postal Address: Jend. Sudirman Street No. 6, Dulalowo Tim, Gorontalo-City, Gorontalo, 96128, Indonesia] Email: [fzo.fekonung@gmail.com](mailto:fzo.fekonung@gmail.com)

Received May 29, 2020 Revised June 07, 2020 Accepted July 09, 2020

The Journal of  
Distribution Science

Journal of Industrial  
Distribution & Business

The Journal of Business, Economics  
and Environmental Studies

The Journal of Asian Finance,  
Economics and Business

## ICBE2020

Jeju City, South Korea, November 25-27, 2020  
Korean Distribution Science Association

 **Crossref**  
Similarity Check  
Powered by iThenticate

 **한국연구재단**  
National Research Foundation of Korea

  
**Crossref**

## Abstract

[Other Sections](#)

The purpose of this study is to provide benefits and ethically-rooted managerial implications based on theoretical underpinnings through an empirical study using correlation between wages, bank credit, government expenditure on economic growth, and employment via a case study in Indonesia. Besides that, managerial implications strive to provide benefits to the government regarding the importance of establishing effective and pro-development regulations to realize economic growth and employment through the efficient role of wages, bank credit, and government spending. This study uses secondary macroeconomic data from the period 2010-2019 with analysis using the correlation test with the Pearson correlation method. Out of eight hypotheses tested, two hypotheses do not have a significant correlation. The details of the statistical results obtained the following correlations: the correlation between bank credit and wages has a significant, but indirect (negative) correlation. However, the correlation between bank credit and economic growth has a direct and significant (positive) correlation. Government expenditure correlates positively with wages, but correlates negatively with bank credit. Wages are positively correlated with economic growth, but have no significant effect on employment. Finally, economic growth has a positive correlation with government expenditure, but does not have a significant correlation with employment.

JEL Classification Code: H1, H5, J1

Key Words : Bank Credit, Wages, Government Expenditure, Economics Growth, Employment

## 1. Introduction

[Other Sections](#)

The issue of wages is a fundamental element of economic principles in the world. In Indonesia alone, the government increases wages from year to year to improve people's living standards, evidenced by statistical data in the post-reform period, rising from IDR1,134,963 in 1997 to IDR2,455,716 in 2019. On the one hand, efforts to increase wages instantly eliminate the main problems that become the polemic of the national economy. The pros and cons of efforts to raise salaries are still alive. Government efforts in maximizing the level of community welfare through wage increases are still considered small to meet the needs of people's lives. An increase in wages is undoubtedly a hope for workers. Where the delivery of wage increases will be in line with the fulfillment of a decent standard of living needs, an increase in public consumption is also considered. There is recognition of the achievements, skills, and abilities of workers in terms of competence and capability.

Increasing wages can also be considered as a simple solution to a problem. The impact of wage increases can harm the development of the business climate where one of the adverse effects caused after the determination of the minimum wage increase is the staff retrenchment (PHK) which can macro-impact on high unemployment and sluggish macroeconomic growth, including the growth of the economic sector, which will in turn have an impact on the consumption by the community itself (Böhm, 1978; Sasaki et al., 2013; Du & Wang, 2019; Greiner et al., 2004; Lankisch et al., 2019; Okudaira et al., 2019). Several studies have made the variable wage a hot issue discussed among researchers who link wages and employment (e.g., Ariga & Kambayashi, 2010; Baek & Park, 2016; Dickson & Fongoni, 2019; Holtemöller & Pohle, 2019; Li et al., 2018; Perugini & Pompei, 2016). From the economic theory and wage theory, there is causality between wages and labor absorption. Labor issues in Indonesia must receive serious attention from various parties, both government and private. Labor issues are the main problems that must be faced by the state and the people of Indonesia. So, it is suggested that the government should embrace the private sector to reduce and resolve labor problems jointly. The limited employment triggers some of the main issues of employment in Indonesia low quality of labor, high unemployment, wage factors, and social security factors that are considered inadequate.

The influence between wages and labor absorption can be realized as long as regulatory factors are seen to be flexible by the government; job security factors and aggregate demand for labor can take place in a positively environment (Ariga & Kambayashi, 2010). But different opinions are expressed in research by Baek and Park (2016), which states that the increase in the minimum wage does not affect employment in the energy sector. Sasaki et al. (2013) states that a high wage rise will affect the economic balance and employment. Of course, the increase in wages is expected to be in line with the quality and quantity of production and labor factors, including the absorption of workers who are capable of both education and performance. Yamamoto et al. (2019) point out the information asymmetry factor towards employment in the Southeast by different levels of education. Yamamoto et al. (2019) show that education is a sub-factor that is very important in terms of employment other than wages.

In Indonesia, there is still a gender gap between male and female workers. The wage gap based on gender is assumed to be linked to the highest education level that has been completed in addition to socio-cultural issues that traditionally consider and view women as having a lower position than men. Apart from that, the wage gap between male and female workers is caused by differences in occupational and demographic characteristics, including work experience (www.tirta.id, 2018). Furthermore, the relationship between wages and economic growth is also clarified in several previous studies (e.g., Du & Wang, 2019; Greiner et al., 2004; Lankisch et al., 2019; Okudaira et al., 2019). Causality is driven by macroeconomics where Grieben and Şener (2017) and Lingens (2007) revealed the bargaining power factor in international trade. Zagler (2005) says there is an impact on employment, which is correctly identified by the role of industry and innovation.

Furthermore, in the government's effort to increase economic growth in all investments, another way to look at is the effectiveness of state expenditure (government expenditure). Reflecting on the State Budget in Indonesia in 2018, total state expenditure allocated a budget of 2,220.7 trillion rupiahs, where the most significant state expenditure category was budgeted for ministry and agency (K / L) expenditure of 847.4 trillion rupiahs, regional transfers and village funds amounting to 766.2 trillion and non-K / L expenditure of 607.1 trillion rupiah (www.kemenkeu.go.id, 2018). The purpose of the state expenditure is to implement social protection programs and sharpen social assistance, one of which is in education and health.

However, several aspects of the study state that government spending has a significant role in economic growth (Fizaine & Court, 2016; Dahliah et al., 2020; Dinh, 2020; Luong et al., 2020), so is the causality between economic growth and employment, which must be bridged with government policy (Roşoiu, 2015), thereby increasing the level of community welfare (Sangha et al., 2019) and the level of acceptance of a country (Lukman et al., 2018). The correlation between bank credit growth and economic growth is in line with several research results including thereby increasing the level of community welfare (Bordo et al., 2016; Chi & Li, 2017; Kettani & Kottaridi, 2019), which concluded that the intermediary role of banking institutions is very influential in a country's economic growth. When there is a decrease in the amount of credit extended due to caution from the bank, indirectly, there will be a slowdown in economic growth in the country concerned. There are different results regarding the relationship between bank credit and economic growth, Restrepo (2019) and Mandel and Seydl (2016) stated that the bank credit factor, which was bridged between economic and tax policies, did not affect economic growth.

The tricky problem with the issue of bank credit in Indonesia is the failure of a loan identified in the debtor identification procedure based on the principle of appropriateness. In addition to that, the problem of global economic instability is also a trigger, which also influences economic growth in Indonesia. Objectively, in several aspects, this current study differs from previous studies regarding the impact of minimum wages on the labor market in Indonesia, the effect of wages on economic growth, the impact of bank credit, and government spending both on economic growth and employment. Empirically, this study is expected to provide a picture, especially for the Indonesian government, of future macro and micro-economic strategies.

## 2. Literature Review and Hypotheses Development

Other Sections ▾

Taylor et al. (2016) found that there was a significant positive effect between economic growth driven by an increase demand growth (see also Inchausti-Sintes, 2015), investment and investment implementation, distribution of goods, productivity, and a balance in the financial capital market and employment. It is in line with the results of studies (e.g., Auricchio et al., 2020; Bohlmann et al., 2019) from the standpoint of equilibrium theory, which adds to the variables of trade, household income, consumption and the level of exports and imports (Jin & Rafferty, 2017). Then, the influence on employment will also be balanced by the existence of a remuneration system, as well as the development of environmental aspects (Ioan, 2014). The study is complemented by research (i.e., Kim et al., 2019; Soto, 2009; Sasaki, 2015), which states that a link between economic growth and employment can be realized when the factor of education, fiscal policy (Doménech et al., 2018), and the balance between job seekers based on gender can be realized ideally. This is also recognized by improving the quality of services and the effect of dollarization on state policy. However, different opinions are expressed by Ioan (2014) and Moutinho et al. (2015), who suggest that market demand, research and development from the government and universities have no significant effect on employment. Ioan stated in his study that investment is a counterweight to the short-term economic growth strategy and technological capacity advancement as a new strategy in terms of optimal employment.

Several researchers have found the influence and relationship between wages and labor absorption (e.g., Ariga & Kambayashi, 2010; Baek & Park, 2016; Dickson & Fongoni, 2019; Holtemöller & Pohle, 2019; Li et al., 2018; Perugini & Pompei, 2016). The influence between wages and employment can be realized as long as regulation, job security, and aggregate demand for labor can take place positively. Whereas optimal wages and remuneration factors provide a real impact that bridges between wages and positive employment (Baek & Park, 2016; Vazzana & Bachmann, 1995; Clemens & Wither, 2019; Caliendo et al., 2018; Bauducco & Janiak, 2018), the factor of discrimination in terms of wages will harm employment (Borowczyk-Martins et al., 2017; Cheng et al., 2013; Perugini & Pompei, 2016; Wang et al., 2019). Conversely, other studies (e.g., Lee & Wolpin, 2010; Sève-Söderbergh, 2019; Schober & Winter-Ebmer, 2011; Xu et al., 2015) found that differences between wages by gender did not affect employment.



Sasaki *et al.* (2013) states that a high rise will wage affect the economic balance and employment. Then from the aspect of wage theory and asymmetric approach says that the loss aversion factor of a worker and wages become contradictory. Dickson and Fongoni (2019) and Su *et al.* (2019) state that the loss aversion factor and asymmetric information bridge the relationship between wages and labor absorption, low loss aversion person, and the high level of asymmetry of personal details of a worker ignores the role of the minimum wage received. Yamamoto *et al.* (2019) states the information asymmetry factor towards employment in the Southeast by differences in educational levels. Yamamoto *et al.* (2019) make it clear that education is a sub-factor that is very important in terms of employment other than wages.

The link between wages and economic growth is shown in previous studies (e.g., Du & Wang, 2019; Greiner *et al.*, 2004), which state that there is a significant influence between low wages, the quality of labor skills and the mastery of technological factors. Lankisch *et al.* (2019) and Okudaira *et al.* (2019) stated that there was a significant influence, including low wages on the quality of the company, so that it had an impact on economic growth. In macroeconomics, Grieben and Şener (2017) and Lingens (2007) revealed the factor of bargaining power in international trade. Zagler (2005) also agrees, stating that low wages would have an impact on employment, correctly identifying industry and innovation. Palokangas (2009) suggests that employment can be realized as long as there is wage optimization and research and development support to produce innovation, especially for industry. The relationship between government spending and employment has been echoed by several previous studies (e.g., Barrow, 2004; Polo *et al.*, 2008), which justify the fact that there is a significant influence on the tourism sector by government spending on employment which is bridged by the level of education as well as government policy (Wu *et al.*, 2010). Sangha *et al.* (2019) states that labor capability contributes to the high level of employment. From the military sector, the opposite facts are revealed by a few studies (e.g., Dunne & Smith, 1990; Alptekin & Levine, 2012; Manamperi, 2016; Yildirim & Sezgin, 2003). They found an opposite fact where they considered that government spending on the military and defense had no effect on labor absorption from the military defense sector in developed countries, but has a significant impact on government spending on the military industry on economic growth for developing countries (Chen *et al.*, 2014; Islam, 2015) including government spending in the forestry sector (Whiteman *et al.*, 2015). However, for the energy sector and energy policy, government spending in this sector has a significant role in terms of economic growth (Fizaine & Court, 2016), as well as government policy (Roşoiu, 2015), public welfare (Sangha *et al.*, 2019) and level of national income (Lukman *et al.*, 2018).

In developing the conceptual framework in the third path analysis, which states the relationship between bank credit and employment, for example, Benmelech *et al.* (2019) states that there is a significant relationship between bank credit and employment from the viewpoint of economic theory by linking the relationship between confidence, taxation that is coercive, short-term compensation, and foreign debt. It is also in line with what has been disclosed (e.g., Cornille *et al.*, 2019; García-Posada Gómez, 2019; Haltenhof *et al.*, 2014; Popov & Rocholl, 2018). However, different opinions were expressed by Degryse *et al.* (2019) and Han and Hare (2013). They revealed that bank credit did not have a significant impact on employment rates. Apart from that, several studies state the relationship between bank credit and economic growth is primarily influenced by several factors such as financial institutions and bank factors as well as business turnover and economic policy (Bordo *et al.*, 2016; Chi & Li, 2017; Hasanov & Huseynov, 2013; Soedarmono *et al.*, 2017; Ketteni & Kottaridi, 2019), but a surprising point was made by Mandel and Seydl (2016), who argue that there is no significant relationship between bank credit and economic growth; other studies (i.e., Restrepo, 2019; Saksonova & Koļeđa, 2017) suggest that industrial growth factors are a bridge between bank credit and economic growth. Based on the previous research matrix, and the relationship between the variables that have been presented, the following hypotheses are developed:

- H1: Bank credit has a significant correlation with wages.*
- H2: Bank credit has a significant correlation with economic growth*
- H3: Government expenditure has a significant correlation with wages*
- H4: Government expenditure has a significant correlation with bank credit*
- H5: Wages have a significant correlation with economic growth*
- H6: Wages have a significant correlation with employment*
- H7: Economic growth has a significant correlation with government expenditure*
- H8: Economic growth has a significant correlation with employment*

## 3. Research Methods and Materials

Other Sections

### 3. 1. Samples

The data used in this research are descriptive quantitative data. This study's data sources are secondary data obtained from Indonesian macroeconomic data from 2010 to 2019, which includes data on wages, bank credit, government spending, economic growth, and employment.

### 3. 2. Measurement

The measurement value equalization model requires several stages, such as variable investment and government expenditure, namely, data transformation using SPSS's Log-10 compute variable. The next step is testing the normality using the asymptotic/Kolmogorv-Smirnov method to determine the correlation test, using the Pearson correlation method. After transforming the value variable, the trial is continued by testing the hypotheses through the correlation testing method with significance ( $p < 0.05$ ). The secondary data sample of the study is illustrated in Appendix 1.

Illustrations of recapitulation of the minimum wage variable data are calculated based on the average value of 34 provinces in Indonesia. Variable bank credit (i.e., average credit from the instruments of agriculture, hunting, fisheries, mining and quarrying, processing industry, gas and water electricity, construction, wholesale and retail trade, provision of accommodation and provision of food and beverages, transportation, warehousing and communication, financial intermediaries, real estate, rental business, and company services, government administration, defense and compulsory social security, educational facilities, health services, and social activities, community services, social culture, entertainment, and other individuals, individual services were serving households, international agencies and other international extra bodies, events which have unclear boundaries). The average variable of government expenditure is based on function (i.e., public services, defense, order and security, economy, environment, housing and public facilities, health, tourism and culture, religion, education, social protection). Complete economic growth variable and employment variable data are in Appendix 2.

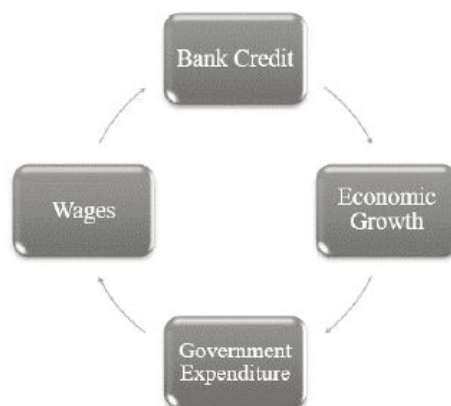
### 4. 1. Results

The statistical test referring to Section 3.2 is first to homogenize data values using the logmethod10 described in Appendix 6. Then, in normality testing, the Asymptotic significance method with unstandardized residual values of XY (Res-1) obtained a value of 0.928 > 0.05, which confirms that the data are normally distributed/parametric. The coefficient of determination (R-Square) predictors obtained a value of 0.691 and a value of R = 0.831, so it can be concluded that all predictors are strongly related by 69.1%. Cronbach's alpha predictor value produced a value of 0.735, so the reliability of the predictor of the dependent variable is robust, which is equal to 73.5%. Based on the results of hypothesis testing as well of the eight hypotheses developed in the previous section, two hypotheses do not support the variables that explain the relationship between wages on economic growth and economic growth on employment.

### 4. 2. Discussion

We have demonstrated through the analysis of the correlation of each variable, that a reciprocal relationship posited in several hypotheses proves a significant influence both positively and negatively. On the other hand, there is also a hypothesis that shows no significant effect at all. The factor of bank credit recorded during the years 2010 to 2019 on a micro-scale in banking in Indonesia is predominantly channeled to the gas and water electricity sector, while government spending is more dominant in the general public service sector, including; employee wages and others. The relationship that describes a significant negative correlation is assumed that the relationship between these variables requires an intermediate variable as an intervening relationship.

We highlight some of the results of studies that have a significant negative correlation, and we can conclude that significant negative means indirect correlation. Examples include the correlation between variables of bank credit on wages and the correlation between government expenditure on bank credit. This means that there is a significant result on the increase in wages driven by the rise in bank credit, so, there must be a connecting variable. We tried to simulate some variables as intervening variables in this study, for example, by modifying the model between bank credit as independent, economic growth as an intervening variable, and wages as the dependent variable with the regression model, but the results were not significant. An essential aspect in the discussion is how bank credit is directly linked to economic growth. This means that the community's outstanding bank credit assumes that it can increase economic growth and the velocity of money in the community. Economic activity that runs in the community will trigger significant state tax revenue, so that government expenditure will also increase primarily to raise wages so that rising wages will also trigger economic growth. In other words, economic stimulus in Indonesia does require debt in the form of bank credit to turn the wheels and the economic cycle, and finance several sectors for the needs of the people (see Figure 1). This statement is fundamental and rational. Given the economic growth in Indonesia over the last few years to 5% before the coronavirus pandemic, economic growth is also in line with the increase in Indonesia's foreign debt, which also continues to increase (See. [www.databoks.katadata.co.id](http://www.databoks.katadata.co.id), 2020).



**Figure 1:** How the Indonesia Economics Works (Authors, 2020)

It is very rational to see how the role of government and private debt or credit banks have a significant impact on the economic wheels of the Indonesian economy because the most prominent government spending is the expenditure allocated to ministries/institutions or non-K/L and the financing of tactical funds again governmental needs. The dominant source of income comes from the tax sector and natural resource income. The natural resource income sector is not all owned by Indonesia, but still belongs to foreign companies (i.e., Vale, Chevron Pacific, Newmont, Freeport, PetroChina, Conoco Philips, BP, Niko Resources, etc). The positive side of bank credit can be a stimulus to increase economic growth. But of course, in a fair way, bank credit or macro debt will also have a negative impact, for example, it will put pressure on the tax sector that is increasingly large and massive to balance the debt position, and is feared to have an effect on fiscal, monetary, and state strategic policies. Wisely and ideally to overcome the adverse effects of the high debt burden in the form of credit banks in Indonesia, the government regulation policy is sought and maximized so that the debt function becomes effective as suggested in the study (Roşoiu, 2015; Sangha et al., 2019; Lukman et al., 2018).

Our study has also provided a comprehensive picture for academics and macroeconomic practitioners, specifically about the role of bank credit in increasing economic growth and its cycle, both at the macro and micro levels. This study also supports the assertion that there is a significant correlation and influence between government spending and bank credit on economic growth (e.g., Fizaine & Court, 2016; Bordo et al., 2016; Chi & Li, 2017; Ketteni & Kottaridi, 2019; Cornille et al., 2019; García-Posada Gómez, 2019; Haltenhof

et al., 2014; Popov & Rocholl, 2018). It also provides differing opinions from Mandel and Seydl (2016), which suggested the role of government and private R&D and the development of human capital form a bridging variable between government spending and economic growth; this study focuses more on the urgency of credit banks to increase economic growth and reflect increased government spending. Benmelech et al., (2019) revealed that there was a significant correlation between bank credit and employment. In contrast, in our study, the relationship can exist, but after passing through several stages, the implications are explained in Figure 1.

## 5. Conclusions




























Other Sections ▾
















This study has provided a broad picture on the vital role of bank credit in triggering effects on micro and macroeconomic growth to the stages where the contribution of bank credit can increase the value of wages. The existence of a negative correlation gives a significant signal that our assumption that the role of government regulations related to credit bank management professionally and ethically can be a good bridge in promoting economic growth. On the other hand, in addition to regulations regarding the optimal management and use of credit banks, it is also expected that our findings inform strategic economic policy. Further research could modify the model with variations in the intervening causality.

## Reference

Other Sections ▾

1. Alptekin, A., & Levine, P. (2012). Military expenditure and economic growth: A meta-analysis. *European Journal of Political Economy*, 28(4), 636–650. <https://doi.org/10.1016/j.ejpolco.2012.07.002> 
2. Ariga, K., & Kambayashi, R. (2010). Employment and wage adjustments at firms under distress in Japan: An analysis based upon a survey. *Journal of the Japanese and International Economies*, 24(2), 213–235. <https://doi.org/10.1016/j.jjie.2009.12.005> 
3. Auricchio, M., Ciani, E., Dalmazzo, A., & de Blasio, G. (2020). Redistributive public employment? A test for the South of Italy. *Economics Letters*, 186(January), 108787. <https://doi.org/10.1016/j.econlet.2019.108787> 
4. Baek, J., & Park, W. R. (2016). Minimum wage introduction and employment: Evidence from South Korea. *Economics Letters*, 139(February), 18–21. <https://doi.org/10.1016/j.econlet.2015.12.014> 
5. Bauducco, S., & Janiak, A. (2018). The macroeconomic consequences of raising the minimum wage: Capital accumulation, employment and the wage distribution. *European Economic Review*, 101(1151053), 57–76. <https://doi.org/10.1016/j.eurocorev.2017.09.012> 
6. Benmelech, E., Frydman, C., & Papanikolaou, D. (2019). Financial frictions and employment during the Great Depression. *Journal of Financial Economics*, 133(3), 541–563. <https://doi.org/10.1016/j.jfineco.2019.02.005> 
7. Bohlmann, H. R., Horridge, J. M., Inglesi-Lotz, R., Roos, E. L., & Stander, L. (2019). Regional employment and economic growth effects of South Africa's transition to low-carbon energy supply mix. *Energy Policy*, 128(July), 830–837. <https://doi.org/10.1016/j.enpol.2019.01.065> 
8. Böhm, V. (1978). Disequilibrium dynamics in a simple macroeconomic model. *Journal of Economic Theory*, 17(2), 179–199. [https://doi.org/https://doi.org/10.1016/0022-0531\(78\)90070-4](https://doi.org/https://doi.org/10.1016/0022-0531(78)90070-4) 
9. Bordo, M. D., Duca, J. V., & Koch, C. (2016). Economic policy uncertainty and the credit channel: Aggregate and bank level U.S. evidence over several decades. *Journal of Financial Stability*, 26(October), 90–106. <https://doi.org/10.1016/j.jfs.2016.07.002> 
10. Borowczyk-Martins, D., Bradley, J., & Tarasonis, L. (2017). Racial discrimination in the U.S. labor market: Employment and wage differentials by skill. *Labour Economics*, 49(August), 106–127. <https://doi.org/10.1016/j.labeco.2017.09.007> 
11. Caliendo, M., Fedorets, A., Preuss, M., Schröder, C., & Wittbrodt, L. (2018). The short-run employment effects of the German minimum wage reform. *Labour Economics*, 53(October), 46–62. <https://doi.org/10.1016/j.labeco.2018.07.002> 
12. Chen, P. F., Lee, C. C., & Chiu, Y. Bin. (2014). The nexus between defense expenditure and economic growth: New global evidence. *Economic Modelling*, 36(January), 474–483. <https://doi.org/10.1016/j.econmod.2013.10.019> 
13. Cheng, Z., Guo, F., Hugo, G., & Yuan, X. (2013). Employment and wage discrimination in the Chinese cities: A comparative study of migrants and locals. *Habitat International*, 39, 246–255. <https://doi.org/10.1016/j.habitatint.2012.11.007> 
14. Chi, Q., & Li, W. (2017). Economic policy uncertainty, credit risks and banks' lending decisions: Evidence from Chinese commercial banks. *China Journal of Accounting Research*, 10(1), 33–50. <https://doi.org/10.1016/j.cjar.2016.12.001> 
15. Clemens, J., & Wither, M. (2019). The minimum wage and the Great Recession: Evidence of effects on the employment and income trajectories of low-skilled workers. *Journal of Public Economics*, 170(February), 53–67. <https://doi.org/10.1016/j.jpubeco.2019.01.004> 
16. Cornille, D., Rycx, F., & Tojerow, I. (2019). Heterogeneous effects of credit constraints on SMEs' employment: Evidence from the European sovereign debt crisis. *Journal of Financial Stability*, 41(April), 1–13. <https://doi.org/10.1016/j.jfs.2019.02.001> 
17. Dahlah, D., Kurniawan, A., & Putra, A. H. P. K. (2020). Analysis and Strategy of Economic Development Policy for SMEs in Indonesia. *Journal of Asian Finance, Economics and Business*, 7(5), 103–110. <https://doi.org/10.13106/jafeb.2020.vol7.no5.103> 
18. Dickson, A., & Fongoni, M. (2019). Asymmetric reference-dependent reciprocity, downward wage rigidity, and the employment contract. *Journal of Economic Behavior and Organization*, 163(July), 409–429. <https://doi.org/10.1016/j.jebo.2019.05.006> 
19. Dinh, D. V.. (2020). Optimal Inflation Threshold and Economic Growth: Ordinal Regression Model Analysis. *Journal of Asian Finance, Economics and Business*, 7(5), 91–102. <https://doi.org/10.13106/jafeb.2020.vol7.no5.091> 
20. Doménech, R., García, J. R., & Ulloa, C. (2018). The effects of wage flexibility on activity and employment in Spain. *Journal of Policy Modeling*, 40(6), 1200–1220. <https://doi.org/10.1016/j.jpolmod.2018.08.002> 
21. Du, P., & Wang, S. (2019). The effect of minimum wage on firm markup: Evidence from China. *Economic Modelling*, 86(March), 241–250. <https://doi.org/10.1016/j.econmod.2019.10.012> 

22. Fizaïne, F., & Court, V. (2016). Energy expenditure, economic growth, and the minimum EROI of society. *Energy Policy*, 95, 172–186. <https://doi.org/10.1016/j.enpol.2016.04.039> 
23. García-Posada Gómez, M. (2019). Credit constraints, firm investment and employment: Evidence from survey data. *Journal of Banking and Finance*, 99(February), 121–141. <https://doi.org/10.1016/j.jbankfin.2018.11.016> 
24. Greiner, A., Rubart, J., & Semmler, W. (2004). Economic growth, skill-biased technical change and wage inequality: A model and estimations for the US and Europe. *Journal of Macroeconomics*, 26(4), 597–621. <https://doi.org/10.1016/j.jmacro.2003.05.001> 
25. Grieben, W. H., & Şener, F. (2017). Wage bargaining, trade and growth. *Research in Economics*, 71(3), 564–587. <https://doi.org/10.1016/j.rie.2017.07.001> 
26. Haltenhof, S., Jung Lee, S., & Stebunovs, V. (2014). The credit crunch and fall in employment during the Great Recession. *Journal of Economic Dynamics and Control*, 43, 31–57. <https://doi.org/10.1016/j.jedc.2014.03.013> 
27. Han, L., & Hare, D. (2013). The link between credit markets and self-employment choice among households in rural China. *Journal of Asian Economics*, 26(June), 52–64. <https://doi.org/10.1016/j.asieco.2013.04.008> 
28. Hasanov, F., & Huseynov, F. (2013). Bank credits and non-oil economic growth: Evidence from Azerbaijan. *International Review of Economics and Finance*, 27(June), 597–610. <https://doi.org/10.1016/j.iref.2013.02.005> 
29. Holtemöller, O., & Pohle, F. (2019). Employment effects of introducing a minimum wage: The case of Germany. *Economic Modelling*, 89(July) <https://doi.org/10.1016/j.econmod.2019.10.006> 
30. Inchausti-Sintes, F. (2015). Tourism: Economic growth, employment and Dutch Disease. *Annals of Tourism Research*, 54(September), 172–189. <https://doi.org/10.1016/j.annals.2015.07.007> 
31. Ioan, D. (2014). Employment – Cause and Effect of the Economic Growth. *Procedia Economics and Finance*, 8(14), 268–274. [https://doi.org/10.1016/s2212-5671\(14\)00090-2](https://doi.org/10.1016/s2212-5671(14)00090-2) 
32. Islam, M. N. (2015). Economic growth, recession, and state expenditure in non-democratic regimes. *European Journal of Political Economy*, 37(March), 68–85. <https://doi.org/10.1016/j.ejpoleco.2014.10.006> 
33. Jin, J., & Rafferty, P. (2017). Does congestion negatively affect income growth and employment growth? Empirical evidence from US metropolitan regions. *Transport Policy*, 55(December), 1–8. <https://doi.org/10.1016/j.tranpol.2016.12.003> 
34. Ketteni, E., & Kottaridi, C. (2019). Credit market deregulation and economic growth: Further insights using a marginal integration approach. *Journal of Macroeconomics*, 62(March), 103115. <https://doi.org/10.1016/j.jmacro.2019.04.001> 
35. Kim, K., İlkkaracan, İ., & Kaya, T. (2019). Public investment in care services in Turkey: Promoting employment & gender inclusive growth. *Journal of Policy Modeling*, 41(6), 1210–1229. <https://doi.org/10.1016/j.jpolmod.2019.05.002> 
36. Lankisch, C., Prettner, K., & Prskawetz, A. (2019). How can robots affect wage inequality? *Economic Modelling*, 81(July), 161–169. <https://doi.org/10.1016/j.econmod.2018.12.015> 
37. Lee, D., & Wolpin, K. I. (2010). Accounting for wage and employment changes in the US from 1968–2000: A dynamic model of labor market equilibrium. *Journal of Econometrics*, 156(1), 68–85. <https://doi.org/10.1016/j.jeconom.2009.09.008> 
38. Li, Y., Holmes, G., Fraher, E. P., Mark, B. A., & Jones, C. B. (2018). Primary Care Nurse Practitioner Wage Differences by Employment Setting. *Nursing Outlook*, 66(6), 528–538. <https://doi.org/10.1016/j.outlook.2018.06.009>  
39. Lingens, J. (2007). Unions, wage setting, and economic growth. *Economic Modelling*, 24(1), 167–188. <https://doi.org/10.1016/j.econmod.2006.06.009> 
40. Lukman, A. F., Adebimpe, O., Onate, C. A., Ogundokun, R. O., Gbadamosi, B., & O. Oluwayemi, M. (2018). Data on expenditure, revenue, and economic growth in Nigeria. *Data in Brief*, 20(October), 1704–1709. <https://doi.org/10.1016/j.dib.2018.08.191>   
41. Luong, T. T. H., Nguyen, T. M., & Nguyen, T. A. N. (2020). Rule of Law, Economic Growth and Shadow Economy in Transition Countries. *Journal of Asian Finance, Economics and Business*, 7(4), 145–154. <https://doi.org/10.13106/jafeb.2020.vol7.no4.145> 
42. Manamperi, N. (2016). Does military expenditure hinder economic growth? Evidence from Greece and Turkey. *Journal of Policy Modeling*, 38(6), 1171–1193. <https://doi.org/10.1016/j.jpolmod.2016.04.003> 
43. Mandel, B. R., & Seydl, J. (2016). Credit conditions and economic growth: Recent evidence from US banks. *Economics Letters*, 147(October), 63–67. <https://doi.org/10.1016/j.econlet.2016.08.017> 
44. Moutinho, R., Au-Yong-Oliveira, M., Coelho, A., & Manso, J. P. (2015). Beyond the “Innovation’s Black-Box”: Translating R&D outlays into employment and economic growth. *Socio-Economic Planning Sciences*, 50(June), 45–58. <https://doi.org/10.1016/j.seps.2015.04.001> 
45. Okudaira, H., Takizawa, M., & Yamanouchi, K. (2019). Minimum wage effects across heterogeneous markets. *Labour Economics*, 59(March), 110–122. <https://doi.org/10.1016/j.labeco.2019.03.004> 
46. Palokangas, T. (2009). Economic growth with political lobbying and wage bargaining. *IFAC Proceedings Volumes*, 42(2), 58–63. <https://doi.org/10.3182/20090506-3-sf-4003.00011> 
47. Perugini, C., & Pompei, F. (2016). Employment protection and wage inequality within education groups in Europe. *Journal of Policy Modeling*, 38(5), 810–836. <https://doi.org/10.1016/j.jpolmod.2016.03.015> 
48. Popov, A., & Rocholl, J. (2018). Do credit shocks affect labor demand? Evidence for employment and wages during the financial crisis. *Journal of Financial Intermediation*, 36(October), 16–27. <https://doi.org/10.1016/j.jfi.2016.10.002> 
49. Restrepo, F. (2019). The effects of taxing bank transactions on bank credit and industrial growth: Evidence from Latin America. *Journal of International Money and Finance*, 93(May), 335–355. <https://doi.org/10.1016/j.jimonfin.2019.02.005> 
50. Roşoiu, I. (2015). The Impact of the Government Revenues and Expenditures on the Economic Growth. *Procedia Economics and Finance*, 32(15), 526–533. [https://doi.org/10.1016/s2212-5671\(15\)01428-8](https://doi.org/10.1016/s2212-5671(15)01428-8) 

51. Saksonova, S., & Koļeđa, O. (2017). Evaluating the Interrelationship between Actions of Latvian Commercial Banks and Latvian Economic Growth. *Procedia Engineering*, 178, 123–130. <https://doi.org/10.1016/j.proeng.2017.01.075> 
52. Sangha, K. K., Gerritsen, R., & Russell-Smith, J. (2019). Repurposing government expenditure for enhancing Indigenous well-being in Australia: A scenario analysis for a new paradigm. *Economic Analysis and Policy*, 63(September), 75–91. <https://doi.org/10.1016/j.eap.2019.04.011> 
53. Sasaki, H. (2015). Is Growth Declining in the Service Economy? Discussion Papers. *Structural Change and Economic Dynamics*, 53(June), <https://doi.org/10.1016/j.strueco.2020.01.004> 
54. Sasaki, H., Matsuyama, J., & Sako, K. (2013). The macroeconomic effects of the wage gap between regular and non-regular employment and of minimum wages. *Structural Change and Economic Dynamics*, 26(September), 61–72. <https://doi.org/10.1016/j.strueco.2013.06.001> 
55. S ave-S oderbergh, J. (2019). Gender gaps in salary negotiations: Salary requests and starting salaries in the field. *Journal of Economic Behavior and Organization*, 161(May), 35–51. <https://doi.org/10.1016/j.jebo.2019.01.019> 
56. Soedarmono, W., Sitorus, D., & Tarazi, A. (2017). Abnormal loan growth, credit information sharing and systemic risk in Asian banks. *Research in International Business and Finance*, 42(July), 1208–1218. <https://doi.org/10.1016/j.ribaf.2017.07.058> 
57. Soto, R. (2009). Dollarization, economic growth, and employment. *Economics Letters*, 105(1), 42–45. <https://doi.org/10.1016/j.econlet.2009.05.012> 
58. Taylor, L., Rezaei, A., & Foley, D. K. (2016). An integrated approach to climate change, income distribution, employment, and economic growth. *Ecological Economics*, 121(January), 196–205. <https://doi.org/10.1016/j.ecolecon.2015.05.015> 
59. Vazzana, G., & Bachmann, D. (1995). Cad Salary and Employment Study. *Computer-Aided Design*, 27(11), 795–803. [https://doi.org/10.1016/0010-4485\(95\)00009-7](https://doi.org/10.1016/0010-4485(95)00009-7) 
60. Wang, W., Phillips, P. C. B., & Su, L. (2019). The heterogeneous effects of the minimum wage on employment across states. *Economics Letters*, 174, 179–185. <https://doi.org/10.1016/j.econlet.2018.11.002> 
61. Whiteman, A., Wickramasinghe, A., & Pi na, L. (2015). Global trends in forest ownership, public income and expenditure on forestry and forestry employment. *Forest Ecology and Management*, 352(September), 99–108. <https://doi.org/10.1016/j.foreco.2015.04.011> 
62. Wu, S. Y., Tang, J. H., & Lin, E. S. (2010). The impact of government expenditure on economic growth: How sensitive to the level of development? *Journal of Policy Modeling*, 32(6), 804–817. <https://doi.org/10.1016/j.jpolmod.2010.05.011> 
63. www.databoks.katadata.co.id. (2020). Indonesian Foreign Debt Reaches Rp 5,620 Trillion as of December 2019. Retrieved March 30, 2020 from: <https://bit.ly/3dhoeyV>
64. www.kemenkeu.go.id. (2018). APBN 2018 Information. Online Webpage. Retrieved March 30, 2020 from: <https://bit.ly/36Bzxk8>
65. www.tirto.id. (2018). The average income of women is still far below the salary of men. Retrieved March 30, 2020 from: <https://bit.ly/2MaiDzC>
66. Xu, S., Huo, L., & Shang, W. (2015). The impact of wage distributions on economics growth based on multi-agent simulation. *Procedia Computer Science*, 55, 809–817. <https://doi.org/10.1016/j.procs.2015.07.155> 
67. Yamamoto, Y., Matsumoto, K., Kawata, K., & Kaneko, S. (2019). Gender-based differences in employment opportunities and wage distribution in Nepal. *Journal of Asian Economics*, 64(October), 101131. <https://doi.org/10.1016/j.asieco.2019.07.004> 
68. Zagler, M. (2005). Wage pacts and economic growth. *Journal of Economic Studies*, 32(5), 420–434. <https://doi.org/10.1108/01443580510622405> 

# How Indonesia Economics Works: Correlation Analysis of Macroeconomics in 2010 - 2019

Fahrudin Zain OLILINGO<sup>1</sup>, Aditya Halim Perdana Kusuma PUTRA<sup>2</sup>

Received: May 29, 2020 Revised: June 07, 2020 Accepted: July 09, 2020

## Abstract

The purpose of this study is to provide benefits and ethically-rooted managerial implications based on theoretical underpinnings through an empirical study using correlation between wages, bank credit, government expenditure on economic growth, and employment via a case study in Indonesia. Besides that, managerial implications strive to provide benefits to the government regarding the importance of establishing effective and pro-development regulations to realize economic growth and employment through the efficient role of wages, bank credit, and government spending. This study uses secondary macroeconomic data from the period 2010-2019 with analysis using the correlation test with the Pearson correlation method. Out of eight hypotheses tested, two hypotheses do not have a significant correlation. The details of the statistical results obtained the following correlations: the correlation between bank credit and wages has a significant, but indirect (negative) correlation. However, the correlation between bank credit and economic growth has a direct and significant (positive) correlation. Government expenditure correlates positively with wages, but correlates negatively with bank credit. Wages are positively correlated with economic growth, but have no significant effect on employment. Finally, economic growth has a positive correlation with government expenditure, but does not have a significant correlation with employment.

**Keywords :** Bank Credit, Wages, Government Expenditure, Economics Growth, Employment

**JEL Classification Code:** H1, H5, J1

## 1. Introduction

The issue of wages is a fundamental element of economic principles in the world. In Indonesia alone, the government increases wages from year to year to improve people's living standards, evidenced by statistical data in the post-reform period, rising from IDR1,134,963 in 1997 to IDR2,455,716 in 2019. On the one hand, efforts to increase wages instantly eliminate the main problems that become the polemic of the national economy. The pros and cons of efforts to raise

salaries are still alive. Government efforts in maximizing the level of community welfare through wage increases are still considered small to meet the needs of people's lives. An increase in wages is undoubtedly a hope for workers. Where the delivery of wage increases will be in line with the fulfillment of a decent standard of living needs, an increase in public consumption is also considered. There is recognition of the achievements, skills, and abilities of workers in terms of competence and capability.

Increasing wages can also be considered as a simple solution to a problem. The impact of wage increases can harm the development of the business climate where one of the adverse effects caused after the determination of the minimum wage increase is the staff retrenchment (PHK) which can macro-impact on high unemployment and sluggish macroeconomic growth, including the growth of the economic sector, which will in turn have an impact on the consumption by the community itself (Böhm, 1978; Sasaki et al., 2013; Du & Wang, 2019; Greiner et al., 2004; Lankisch et al., 2019; Okudaira et al., 2019). Several studies have made the variable wage a hot issue discussed among researchers who link wages and employment (e.g., Ariga &

<sup>1</sup>First Author and Corresponding Author. Associate Professor, Department of Economics Development Studies, Faculty of Economics, Universitas Negeri Gorontalo, Indonesia [Postal Address: Jend. Sudirman Street No. 6, Dulalowo Tim, Gorontalo-City, Gorontalo, 96128, Indonesia] Email: fzo.fekonung@gmail.com  
<sup>2</sup>Assistant Professor, Department of Management, Faculty of Economics and Business, Universitas Muslim Indonesia, Makassar, Indonesia. Email: adityatrojhan@gmail.com



Kambayashi, 2010; Baek & Park, 2016; Dickson & Fongoni, 2019; Holtemöller & Pohle, 2019; Li et al., 2018; Perugini & Pompei, 2016). From the economic theory and wage theory, there is causality between wages and labor absorption. Labor issues in Indonesia must receive serious attention from various parties, both government and private. Labor issues are the main problems that must be faced by the state and the people of Indonesia. So, it is suggested that the government should embrace the private sector to reduce and resolve labor problems jointly. The limited employment triggers some of the main issues of employment in Indonesia low quality of labor, high unemployment, wage factors, and social security factors that are considered inadequate.

The influence between wages and labor absorption can be realized as long as regulatory factors are seen to be flexible by the government; job security factors and aggregate demand for labor can take place in a positively environment (Ariga & Kambayashi, 2010). But different opinions are expressed in research by Baek and Park (2016), which states that the increase in the minimum wage does not affect employment in the energy sector. Sasaki et al. (2013) states that a high wage rise will affect the economic balance and employment. Of course, the increase in wages is expected to be in line with the quality and quantity of production and labor factors, including the absorption of workers who are capable of both education and performance. Yamamoto et al. (2019) point out the information asymmetry factor towards employment in the Southeast by different levels of education. Yamamoto et al. (2019) show that education is a sub-factor that is very important in terms of employment other than wages.

In Indonesia, there is still a gender gap between male and female workers. The wage gap based on gender is assumed to be linked to the highest education level that has been completed in addition to socio-cultural issues that traditionally consider and view women as having a lower position than men. Apart from that, the wage gap between male and female workers is caused by differences in occupational and demographic characteristics, including work experience (www.tirto.id, 2018). Furthermore, the relationship between wages and economic growth is also clarified in several previous studies (e.g., Du & Wang, 2019; Greiner et al., 2004; Lankisch et al., 2019; Okudaira et al., 2019). Causality is driven by macroeconomics where Grieben and Şener (2017) and Lingens (2007) revealed the bargaining power factor in international trade. Zagler (2005) says there is an impact on employment, which is correctly identified by the role of industry and innovation.

Furthermore, in the government's effort to increase economic growth in all investments, another way to look at is the effectiveness of state expenditure (government expenditure). Reflecting on the State Budget in Indonesia in 2018, total state expenditure allocated a budget of 2,220.7 trillion rupiahs, where the most significant state expenditure

category was budgeted for ministry and agency (K / L) expenditure of 847.4 trillion rupiahs, regional transfers and village funds amounting to 766.2 trillion and non-K / L expenditure of 607.1 trillion rupiah (www.kemenkeu.go.id, 2018). The purpose of the state expenditure is to implement social protection programs and sharpen social assistance, one of which is in education and health.

However, several aspects of the study state that government spending has a significant role in economic growth (Fizaine & Court, 2016; Dahliah et al., 2020; Dinh, 2020; Luong et al., 2020), so is the causality between economic growth and employment, which must be bridged with government policy (Roşoiu, 2015), thereby increasing the level of community welfare (Sangha et al., 2019) and the level of acceptance of a country (Lukman et al., 2018). The correlation between bank credit growth and economic growth is in line with several research results including thereby increasing the level of community welfare (Bordo et al., 2016; Chi & Li, 2017; Ketteni & Kottaridi, 2019), which concluded that the intermediary role of banking institutions is very influential in a country's economic growth. When there is a decrease in the amount of credit extended due to caution from the bank, indirectly, there will be a slowdown in economic growth in the country concerned. There are different results regarding the relationship between bank credit and economic growth, Restrepo (2019) and Mandel and Seydl (2016) stated that the bank credit factor, which was bridged between economic and tax policies, did not affect economic growth.

The tricky problem with the issue of bank credit in Indonesia is the failure of a loan identified in the debtor identification procedure based on the principle of appropriateness. In addition to that, the problem of global economic instability is also a trigger, which also influences economic growth in Indonesia. Objectively, in several aspects, this current study differs from previous studies regarding the impact of minimum wages on the labor market in Indonesia, the effect of wages on economic growth, the impact of bank credit, and government spending both on economic growth and employment. Empirically, this study is expected to provide a picture, especially for the Indonesian government, of future macro and micro-economic strategies.

## 2. Literature Review and Hypotheses Development

Taylor et al. (2016) found that there was a significant positive effect between economic growth driven by an increase demand growth (see also Inchausti-Sintes, 2015), investment and investment implementation, distribution of goods, productivity, and a balance in the financial capital market and employment. It is in line with the results of studies (e.g., Auricchio et al., 2020; Bohlmann et al., 2019)

from the standpoint of equilibrium theory, which adds to the variables of trade, household income, consumption and the level of exports and imports (Jin & Rafferty, 2017). Then, the influence on employment will also be balanced by the existence of a remuneration system, as well as the development of environmental aspects (Ioan, 2014). The study is complemented by research (i.e., Kim et al., 2019; Soto, 2009; Sasaki, 2015), which states that a link between economic growth and employment can be realized when the factor of education, fiscal policy (Doménech et al., 2018), and the balance between job seekers based on gender can be realized ideally. This is also recognized by improving the quality of services and the effect of dollarization on state policy. However, different opinions are expressed by Ioan (2014) and Moutinho et al. (2015), who suggest that market demand, research and development from the government and universities have no significant effect on employment. Ioan stated in his study that investment is a counterweight to the short-term economic growth strategy and technological capacity advancement as a new strategy in terms of optimal employment.

Several researchers have found the influence and relationship between wages and labor absorption (e.g., Ariga & Kambayashi, 2010; Baek & Park, 2016; Dickson & Fongoni, 2019; Holtemöller & Pohle, 2019; Li et al., 2018; Perugini & Pompei, 2016). The influence between wages and employment can be realized as long as regulation, job security, and aggregate demand for labor can take place positively. Whereas optimal wages and remuneration factors provide a real impact that bridges between wages and positive employment (Baek & Park, 2016; Vazzana & Bachmann, 1995; Clemens & Wither, 2019; Caliendo et al., 2018; Bauducco & Janiak, 2018), the factor of discrimination in terms of wages will harm employment (Borowczyk-Martins et al., 2017; Cheng et al., 2013; Perugini & Pompei, 2016; Wang et al., 2019). Conversely, other studies (e.g., Lee & Wolpin, 2010; Säve-Söderbergh, 2019; Schober & Winter-Ebmer, 2011; Xu et al., 2015) found that differences between wages by gender did not affect employment.

Sasaki *et al.* (2013) states that a high rise will wage affect the economic balance and employment. Then from the aspect of wage theory and asymmetric approach says that the loss aversion factor of a worker and wages become contradictory. Dickson and Fongoni (2019) and Su *et al.* (2019) state that the loss aversion factor and asymmetric information bridge the relationship between wages and labor absorption, low loss aversion person, and the high level of asymmetry of personal details of a worker ignores the role of the minimum wage received. Yamamoto *et al.* (2019) states the information asymmetry factor towards employment in the Southeast by differences in educational levels. Yamamoto et al. (2019) make it clear that education is a sub-factor that is very important in terms of employment other than wages.

The link between wages and economic growth is shown in previous studies (e.g., Du & Wang, 2019; Greiner et al., 2004), which state that there is a significant influence between low wages, the quality of labor skills and the mastery of technological factors. Lankisch et al. (2019) and Okudaira et al. (2019) stated that there was a significant influence, including low wages on the quality of the company, so that it had an impact on economic growth. In macroeconomics, Grieben and Şener (2017) and Lingens (2007) revealed the factor of bargaining power in international trade. Zagler (2005) also agrees, stating that low wages would have an impact on employment, correctly identifying industry and innovation. Palokangas (2009) suggests that employment can be realized as long as there is wage optimization and research and development support to produce innovation, especially for industry.

The relationship between government spending and employment has been echoed by several previous studies (e.g., Barrow, 2004; Polo et al., 2008), which justify the fact that there is a significant influence on the tourism sector by government spending on employment which is bridged by the level of education as well as government policy (Wu et al., 2010). Sangha et al. (2019) states that labor capability contributes to the high level of employment. From the military sector, the opposite facts are revealed by a few studies (e.g., Dunne & Smith, 1990; Alptekin & Levine, 2012; Manamperi, 2016; Yildirim & Sezgin, 2003). They found an opposite fact where they considered that government spending on the military and defense had no effect on labor absorption from the military defense sector in developed countries, but has a significant impact on government spending on the military industry on economic growth for developing countries (Chen et al., 2014; Islam, 2015) including government spending in the forestry sector (Whiteman et al., 2015).

However, for the energy sector and energy policy, government spending in this sector has a significant role in terms of economic growth (Fizaine & Court, 2016), as well as government policy (Roşoiu, 2015), public welfare (Sangha et al., 2019) and level of national income (Lukman et al., 2018).

In developing the conceptual framework in the third path analysis, which states the relationship between bank credit and employment, for example, Benmelech et al. (2019) states that there is a significant relationship between bank credit and employment from the viewpoint of economic theory by linking the relationship between confidence, taxation that is coercive, short-term compensation, and foreign debt. It is also in line with what has been disclosed (e.g., Cornille et al., 2019; García-Posada Gómez, 2019; Haltenhof et al., 2014; Popov & Rocholl, 2018). However, different opinions were expressed by Degryse et al. (2019) and Han and



Hare (2013). They revealed that bank credit did not have a significant impact on employment rates. Apart from that, several studies state the relationship between bank credit and economic growth is primarily influenced by several factors such as financial institutions and bank factors as well as business turnover and economic policy (Bordo et al., 2016; Chi & Li, 2017; Hasanov & Huseynov, 2013; Soedarmono et al., 2017; Ketteni & Kottaridi, 2019), but a surprising point was made by Mandel and Seydl (2016), who argue that there is no significant relationship between bank credit and economic growth; other studies (i.e., Restrepo, 2019; Saksonova & Koleda, 2017) suggest that industrial growth factors are a bridge between bank credit and economic growth. Based on the previous research matrix, and the relationship between the variables that have been presented, the following hypotheses are developed:

*H1: Bank credit has a significant correlation with wages.*

*H2: Bank credit has a significant correlation with economic growth*

*H3: Government expenditure has a significant correlation with wages*

*H4: Government expenditure has a significant correlation with bank credit*

*H5: Wages have a significant correlation with economic growth*

*H6: Wages have a significant correlation with employment*

*H7: Economic growth has a significant correlation with government expenditure*

*H8: Economic growth has a significant correlation with employment*

### 3. Research Methods and Materials

#### 3.1. Samples

The data used in this research are descriptive quantitative data. This study's data sources are secondary data obtained from Indonesian macroeconomic data from 2010 to 2019, which includes data on wages, bank credit, government spending, economic growth, and employment.

#### 3.2. Measurement

The measurement value equalization model requires several stages, such as variable investment and government expenditure, namely, data transformation using SPSS's Log-10 compute variable. The next step is testing the normality using the asymptotic/Kolomogorv-Smirnov method to determine the correlation test, using the Pearson correlation method. After transforming the value variable, the trial is

continued by testing the hypotheses through the correlation testing method with significance ( $p < 0.05$ ). The secondary data sample of the study is illustrated in Appendix 1.

Illustrations of recapitulation of the minimum wage variable data are calculated based on the average value of 34 provinces in Indonesia. Variable bank credit (i.e., average credit from the instruments of agriculture, hunting, fisheries, mining and quarrying, processing industry, gas and water electricity, construction, wholesale and retail trade, provision of accommodation and provision of food and beverages, transportation, warehousing and communication, financial intermediaries, real estate, rental business, and company services, government administration, defense and compulsory social security, educational facilities, health services, and social activities, community services, social culture, entertainment, and other individuals, individual services were serving households, international agencies and other international extra bodies, events which have unclear boundaries). The average variable of government expenditure is based on function (i.e., public services, defense, order and security, economy, environment, housing and public facilities, health, tourism and culture, religion, education, social protection). Complete economic growth variable and employment variable data are in Appendix 2.

## 4. Results and Discussion

### 4.1. Results

The statistical test referring to Section 3.2 is first to homogenize data values using the logmethod10 described in Appendix 6. Then, in normality testing, the Asymptotic significance method with unstandardized residual values of XY (Res-1) obtained a value of  $0.928 > 0.05$ , which confirms that the data are normally distributed/parametric. The coefficient of determination (R-Square) predictors obtained a value of 0.691 and a value of  $R = 0.831$ , so it can be concluded that all predictors are strongly related by 69.1%. Cronbach's alpha predictor value produced a value of 0.735, so the reliability of the predictor of the dependent variable is robust, which is equal to 73.5%. Based on the results of hypothesis testing as well of the eight hypotheses developed in the previous section, two hypotheses do not support the variables that explain the relationship between wages on economic growth and economic growth on employment.

### 4.2. Discussion

We have demonstrated through the analysis of the correlation of each variable, that a reciprocal relationship posited in several hypotheses proves a significant influence both positively and negatively. On the other hand, there is

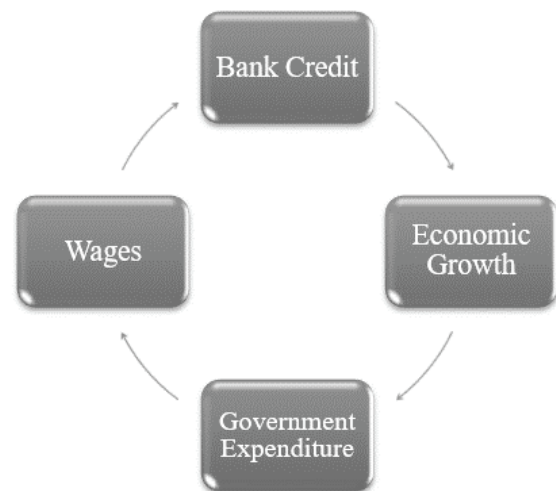
also a hypothesis that shows no significant effect at all. The factor of bank credit recorded during the years 2010 to 2019 on a micro-scale in banking in Indonesia is predominantly channeled to the gas and water electricity sector, while government spending is more dominant in the general public service sector, including; employee wages and others. The relationship that describes a significant negative correlation is assumed that the relationship between these variables requires an intermediate variable as an intervening relationship.

We highlight some of the results of studies that have a significant negative correlation, and we can conclude that significant negative means indirect correlation. Examples include the correlation between variables of bank credit on wages and the correlation between government expenditure on bank credit. This means that there is a significant result on the increase in wages driven by the rise in bank credit, so, there must be a connecting variable. We tried to simulate some variables as intervening variables in this study, for example, by modifying the model between bank credit as independent, economic growth as an intervening variable, and wages as the dependent variable with the regression model, but the results were not significant. An essential aspect in the discussion is how bank credit is directly linked to economic growth. This means that the community's outstanding bank credit assumes that it can increase economic growth and the velocity of money in the community. Economic activity that runs in the community will trigger significant state tax revenue, so that government expenditure will also increase primarily to raise wages so that rising wages will also trigger economic growth. In other words, economic stimulus in Indonesia does require debt in the form of bank credit to turn the wheels and the economic cycle, and finance several sectors for the needs of the people (see Figure 1). This statement is fundamental and rational. Given the economic growth in Indonesia over the last few years to 5% before the coronavirus pandemic, economic growth is also in line with the increase in Indonesia's foreign debt, which also continues to increase (See. [www.databoks.katadata.co.id](http://www.databoks.katadata.co.id), 2020).

It is very rational to see how the role of government and private debt or credit banks have a significant impact on the economic wheels of the Indonesian economy because the most prominent government spending is the expenditure allocated to ministries/institutions or non-K/L and the financing of tactical funds again governmental needs. The dominant source of income comes from the tax sector and natural resource income. The natural resource income sector is not all owned by Indonesia, but still belongs to foreign companies (i.e., Vale, Chevron Pacific, Newmont, Freeport, PetroChina, Conoco Philips, BP, Niko Resources, etc). The positive side of bank credit can be a stimulus to increase

economic growth. But of course, in a fair way, bank credit or macro debt will also have a negative impact, for example, it will put pressure on the tax sector that is increasingly large and massive to balance the debt position, and is feared to have an effect on fiscal, monetary, and state strategic policies. Wisely and ideally to overcome the adverse effects of the high debt burden in the form of credit banks in Indonesia, the government regulation policy is sought and maximized so that the debt function becomes effective as suggested in the study (Roşoiu, 2015; Sangha et al., 2019; Lukman et al., 2018).

Our study has also provided a comprehensive picture for academics and macroeconomic practitioners, specifically about the role of bank credit in increasing economic growth and its cycle, both at the macro and micro levels. This study also supports the assertion that there is a significant correlation and influence between government spending and bank credit on economic growth (e.g., Fizaine & Court, 2016; Bordo et al., 2016; Chi & Li, 2017; Kettani & Kottaridi, 2019; Cornille et al., 2019; García-Posada Gómez, 2019; Haltenhof et al., 2014; Popov & Rocholl, 2018). It also provides differing opinions from Mandel and Seydl (2016), which suggested the role of government and private R&D and the development of human capital form a bridging variable between government spending and economic growth; this study focuses more on the urgency of credit banks to increase economic growth and reflect increased government spending. Benmelech et al., (2019) revealed that there was a significant correlation between bank credit and employment. In contrast, in our study, the relationship can exist, but after passing through several stages, the implications are explained in Figure 1.



**Figure 1:** How the Indonesia Economics Works (Authors, 2020)

## 5. Conclusions

This study has provided a broad picture on the vital role of bank credit in triggering effects on micro and macroeconomic growth to the stages where the contribution of bank credit can increase the value of wages. The existence of a negative correlation gives a significant signal that our assumption that the role of government regulations related to credit bank management professionally and ethically can be a good bridge in promoting economic growth. On the other hand, in addition to regulations regarding the optimal management and use of credit banks, it is also expected that our findings inform strategic economic policy. Further research could modify the model with variations in the intervening causality.

## References

- Alptekin, A., & Levine, P. (2012). Military expenditure and economic growth: A meta-analysis. *European Journal of Political Economy*, 28(4), 636-650. <https://doi.org/10.1016/j.ejpoleco.2012.07.002>
- Ariga, K., & Kambayashi, R. (2010). Employment and wage adjustments at firms under distress in Japan: An analysis based upon a survey. *Journal of the Japanese and International Economies*, 24(2), 213-235. <https://doi.org/10.1016/j.jjie.2009.12.005>
- Auricchio, M., Ciani, E., Dalmazzo, A., & de Blasio, G. (2020). Redistributive public employment? A test for the South of Italy. *Economics Letters*, 186(January), 108787. <https://doi.org/10.1016/j.econlet.2019.108787>
- Baek, J., & Park, W. R. (2016). Minimum wage introduction and employment: Evidence from South Korea. *Economics Letters*, 139(February), 18-21. <https://doi.org/10.1016/j.econlet.2015.12.014>
- Bauducco, S., & Janiak, A. (2018). The macroeconomic consequences of raising the minimum wage: Capital accumulation, employment and the wage distribution. *European Economic Review*, 101(1151053), 57-76. <https://doi.org/10.1016/j.euroecorev.2017.09.012>
- Benmelech, E., Frydman, C., & Papanikolaou, D. (2019). Financial frictions and employment during the Great Depression. *Journal of Financial Economics*, 133(3), 541-563. <https://doi.org/10.1016/j.jfineco.2019.02.005>
- Bohlmann, H. R., Horridge, J. M., Inglesi-Lotz, R., Roos, E. L., & Stander, L. (2019). Regional employment and economic growth effects of South Africa's transition to low-carbon energy supply mix. *Energy Policy*, 128(July), 830-837. <https://doi.org/10.1016/j.enpol.2019.01.065>
- Böhm, V. (1978). Disequilibrium dynamics in a simple macroeconomic model. *Journal of Economic Theory*, 17(2), 179-199. [https://doi.org/https://doi.org/10.1016/0022-0531\(78\)90070-4](https://doi.org/https://doi.org/10.1016/0022-0531(78)90070-4)
- Bordo, M. D., Duca, J. V., & Koch, C. (2016). Economic policy uncertainty and the credit channel: Aggregate and bank level U.S. evidence over several decades. *Journal of Financial Stability*, 26(October), 90-106. <https://doi.org/10.1016/j.jfs.2016.07.002>
- Borowczyk-Martins, D., Bradley, J., & Tarasonis, L. (2017). Racial discrimination in the U.S. labor market: Employment and wage differentials by skill. *Labour Economics*, 49(August), 106–127. <https://doi.org/10.1016/j.labeco.2017.09.007>
- Caliendo, M., Fedorets, A., Preuss, M., Schröder, C., & Wittbrodt, L. (2018). The short-run employment effects of the German minimum wage reform. *Labour Economics*, 53(October), 46-62. <https://doi.org/10.1016/j.labeco.2018.07.002>
- Chen, P. F., Lee, C. C., & Chiu, Y. Bin. (2014). The nexus between defense expenditure and economic growth: New global evidence. *Economic Modelling*, 36(January), 474-483. <https://doi.org/10.1016/j.econmod.2013.10.019>
- Cheng, Z., Guo, F., Hugo, G., & Yuan, X. (2013). Employment and wage discrimination in the Chinese cities: A comparative study of migrants and locals. *Habitat International*, 39, 246-255. <https://doi.org/10.1016/j.habitatint.2012.11.007>
- Chi, Q., & Li, W. (2017). Economic policy uncertainty, credit risks and banks' lending decisions: Evidence from Chinese commercial banks. *China Journal of Accounting Research*, 10(1), 33-50. <https://doi.org/10.1016/j.cjar.2016.12.001>
- Clemens, J., & Wither, M. (2019). The minimum wage and the Great Recession: Evidence of effects on the employment and income trajectories of low-skilled workers. *Journal of Public Economics*, 170(February), 53-67. <https://doi.org/10.1016/j.jpubeco.2019.01.004>
- Cornille, D., Rycx, F., & Tojerow, I. (2019). Heterogeneous effects of credit constraints on SMEs' employment: Evidence from the European sovereign debt crisis. *Journal of Financial Stability*, 41(April), 1-13. <https://doi.org/10.1016/j.jfs.2019.02.001>
- Dahliah, D., Kurniawan, A., & Putra, A. H. P. K. (2020). Analysis and Strategy of Economic Development Policy for SMEs in Indonesia. *Journal of Asian Finance, Economics and Business*, 7(5), 103-110. <https://doi.org/10.13106/jafeb.2020.vol7.no5.103>
- Dickson, A., & Fongoni, M. (2019). Asymmetric reference-dependent reciprocity, downward wage rigidity, and the employment contract. *Journal of Economic Behavior and Organization*, 163(July), 409-429. <https://doi.org/10.1016/j.jebo.2019.05.006>
- Dinh, D. V. (2020). Optimal Inflation Threshold and Economic Growth: Ordinal Regression Model Analysis. *Journal of Asian Finance, Economics and Business*, 7(5), 91-102. <https://doi.org/10.13106/jafeb.2020.vol7.no5.091>
- Doménech, R., García, J. R., & Ulloa, C. (2018). The effects of wage flexibility on activity and employment in Spain. *Journal of Policy Modeling*, 40(6), 1200-1220. <https://doi.org/10.1016/j.jpolmod.2018.08.002>

- Du, P., & Wang, S. (2019). The effect of minimum wage on firm markup: Evidence from China. *Economic Modelling*, 86(March), 241-250. <https://doi.org/10.1016/j.econmod.2019.10.012>
- Fizaine, F., & Court, V. (2016). Energy expenditure, economic growth, and the minimum EROI of society. *Energy Policy*, 95, 172-186. <https://doi.org/10.1016/j.enpol.2016.04.039>
- García-Posada Gómez, M. (2019). Credit constraints, firm investment and employment: Evidence from survey data. *Journal of Banking and Finance*, 99(February), 121-141. <https://doi.org/10.1016/j.jbankfin.2018.11.016>
- Greiner, A., Rubart, J., & Semmler, W. (2004). Economic growth, skill-biased technical change and wage inequality: A model and estimations for the US and Europe. *Journal of Macroeconomics*, 26(4), 597-621. <https://doi.org/10.1016/j.jmacro.2003.05.001>
- Grieben, W. H., & Şener, F. (2017). Wage bargaining, trade and growth. *Research in Economics*, 71(3), 564-587. <https://doi.org/10.1016/j.rie.2017.07.001>
- Haltenhof, S., Jung Lee, S., & Stebunovs, V. (2014). The credit crunch and fall in employment during the Great Recession. *Journal of Economic Dynamics and Control*, 43, 31-57. <https://doi.org/10.1016/j.jedc.2014.03.013>
- Han, L., & Hare, D. (2013). The link between credit markets and self-employment choice among households in rural China. *Journal of Asian Economics*, 26(June), 52-64. <https://doi.org/10.1016/j.asieco.2013.04.008>
- Hasanov, F., & Huseynov, F. (2013). Bank credits and non-oil economic growth: Evidence from Azerbaijan. *International Review of Economics and Finance*, 27(June), 597-610. <https://doi.org/10.1016/j.iref.2013.02.005>
- Holtemöller, O., & Pohle, F. (2019). Employment effects of introducing a minimum wage: The case of Germany. *Economic Modelling*, 89(July) <https://doi.org/10.1016/j.econmod.2019.10.006>
- Inchausti-Sintes, F. (2015). Tourism: Economic growth, employment and Dutch Disease. *Annals of Tourism Research*, 54(September), 172-189. <https://doi.org/10.1016/j.annals.2015.07.007>
- Ioan, D. (2014). Employment – Cause and Effect of the Economic Growth. *Procedia Economics and Finance*, 8(14), 268-274. [https://doi.org/10.1016/s2212-5671\(14\)00090-2](https://doi.org/10.1016/s2212-5671(14)00090-2)
- Islam, M. N. (2015). Economic growth, repression, and state expenditure in non-democratic regimes. *European Journal of Political Economy*, 37(March), 68-85. <https://doi.org/10.1016/j.ejpoleco.2014.10.006>
- Jin, J., & Rafferty, P. (2017). Does congestion negatively affect income growth and employment growth? Empirical evidence from US metropolitan regions. *Transport Policy*, 55(December), 1-8. <https://doi.org/10.1016/j.tranpol.2016.12.003>
- Ketteni, E., & Kottaridi, C. (2019). Credit market deregulation and economic growth: Further insights using a marginal integration approach. *Journal of Macroeconomics*, 62(March), 103115. <https://doi.org/10.1016/j.jmacro.2019.04.001>
- Kim, K., İlkaracan, İ., & Kaya, T. (2019). Public investment in care services in Turkey: Promoting employment & gender inclusive growth. *Journal of Policy Modeling*, 41(6), 1210-1229. <https://doi.org/10.1016/j.jpolmod.2019.05.002>
- Lankisch, C., Prettner, K., & Prskawetz, A. (2019). How can robots affect wage inequality? *Economic Modelling*, 81(July), 161-169. <https://doi.org/10.1016/j.econmod.2018.12.015>
- Lee, D., & Wolpin, K. I. (2010). Accounting for wage and employment changes in the US from 1968-2000: A dynamic model of labor market equilibrium. *Journal of Econometrics*, 156(1), 68-85. <https://doi.org/10.1016/j.jeconom.2009.09.008>
- Li, Y., Holmes, G., Fraher, E. P., Mark, B. A., & Jones, C. B. (2018). Primary Care Nurse Practitioner Wage Differences by Employment Setting. *Nursing Outlook*, 66(6), 528-538. <https://doi.org/10.1016/j.outlook.2018.06.009>
- Lingens, J. (2007). Unions, wage setting, and economic growth. *Economic Modelling*, 24(1), 167–188. <https://doi.org/10.1016/j.econmod.2006.06.009>
- Lukman, A. F., Adebimpe, O., Onate, C. A., Ogundokun, R. O., Gbadamosi, B., & O. Oluwayemi, M. (2018). Data on expenditure, revenue, and economic growth in Nigeria. *Data in Brief*, 20(October), 1704-1709. <https://doi.org/10.1016/j.dib.2018.08.191>
- Luong, T. T. H., Nguyen, T. M., & Nguyen, T. A. N. (2020). Rule of Law, Economic Growth and Shadow Economy in Transition Countries. *Journal of Asian Finance, Economics and Business*, 7(4), 145-154. <https://doi.org/10.13106/jafeb.2020.vol7.no4.145>
- Manamperi, N. (2016). Does military expenditure hinder economic growth? Evidence from Greece and Turkey. *Journal of Policy Modeling*, 38(6), 1171-1193. <https://doi.org/10.1016/j.jpolmod.2016.04.003>
- Mandel, B. R., & Seydl, J. (2016). Credit conditions and economic growth: Recent evidence from US banks. *Economics Letters*, 147(October), 63-67. <https://doi.org/10.1016/j.econlet.2016.08.017>
- Moutinho, R., Au-Yong-Oliveira, M., Coelho, A., & Manso, J. P. (2015). Beyond the “Innovation’s Black-Box”: Translating R&D outlays into employment and economic growth. *Socio-Economic Planning Sciences*, 50(June), 45-58. <https://doi.org/10.1016/j.seps.2015.04.001>
- Okudaira, H., Takizawa, M., & Yamanouchi, K. (2019). Minimum wage effects across heterogeneous markets. *Labour Economics*, 59(March), 110-122. <https://doi.org/10.1016/j.labeco.2019.03.004>
- Palokangas, T. (2009). Economic growth with political lobbying and wage bargaining. *IFAC Proceedings Volumes*, 42(2), 58-63. <https://doi.org/10.3182/20090506-3-sf-4003.00011>
- Perugini, C., & Pompei, F. (2016). Employment protection and wage inequality within education groups in Europe. *Journal of Policy Modeling*, 38(5), 810-836. <https://doi.org/10.1016/j.jpolmod.2016.03.015>



- Popov, A., & Rocholl, J. (2018). Do credit shocks affect labor demand? Evidence for employment and wages during the financial crisis. *Journal of Financial Intermediation*, 36(October), 16-27. <https://doi.org/10.1016/j.jfi.2016.10.002>
- Restrepo, F. (2019). The effects of taxing bank transactions on bank credit and industrial growth: Evidence from Latin America. *Journal of International Money and Finance*, 93(May), 335–355. <https://doi.org/10.1016/j.jimonfin.2019.02.005>
- Roşoiu, I. (2015). The Impact of the Government Revenues and Expenditures on the Economic Growth. *Procedia Economics and Finance*, 32(15), 526–533. [https://doi.org/10.1016/s2212-5671\(15\)01428-8](https://doi.org/10.1016/s2212-5671(15)01428-8)
- Saksonova, S., & Koļeda, O. (2017). Evaluating the Interrelationship between Actions of Latvian Commercial Banks and Latvian Economic Growth. *Procedia Engineering*, 178, 123-130. <https://doi.org/10.1016/j.proeng.2017.01.075>
- Sangha, K. K., Gerritsen, R., & Russell-Smith, J. (2019). Repurposing government expenditure for enhancing Indigenous well-being in Australia: A scenario analysis for a new paradigm. *Economic Analysis and Policy*, 63(September), 75-91. <https://doi.org/10.1016/j.eap.2019.04.011>
- Sasaki, H. (2015). Is Growth Declining in the Service Economy? Discussion Papers. *Structural Change and Economics Dynamics*, 53(June), <https://doi.org/10.1016/j.strueco.2020.01.004>
- Sasaki, H., Matsuyama, J., & Sako, K. (2013). The macroeconomic effects of the wage gap between regular and non-regular employment and of minimum wages. *Structural Change and Economic Dynamics*, 26(September), 61-72. <https://doi.org/10.1016/j.strueco.2013.06.001>
- Säve-Söderbergh, J. (2019). Gender gaps in salary negotiations: Salary requests and starting salaries in the field. *Journal of Economic Behavior and Organization*, 161(May), 35-51. <https://doi.org/10.1016/j.jebo.2019.01.019>
- Soedarmono, W., Sitorus, D., & Tarazi, A. (2017). Abnormal loan growth, credit information sharing and systemic risk in Asian banks. *Research in International Business and Finance*, 42(July), 1208-1218. <https://doi.org/10.1016/j.ribaf.2017.07.058>
- Soto, R. (2009). Dollarization, economic growth, and employment. *Economics Letters*, 105(1), 42-45. <https://doi.org/10.1016/j.econlet.2009.05.012>
- Taylor, L., Rezai, A., & Foley, D. K. (2016). An integrated approach to climate change, income distribution, employment, and economic growth. *Ecological Economics*, 121(January), 196–205. <https://doi.org/10.1016/j.ecolecon.2015.05.015>
- Vazzana, G., & Bachmann, D. (1995). Cad Salary and Employment Study. *Computer-Aided Design*, 27(11), 795-803. [https://doi.org/10.1016/0010-4485\(95\)00009-7](https://doi.org/10.1016/0010-4485(95)00009-7)
- Wang, W., Phillips, P. C. B., & Su, L. (2019). The heterogeneous effects of the minimum wage on employment across states. *Economics Letters*, 174, 179-185. <https://doi.org/10.1016/j.econlet.2018.11.002>
- Whiteman, A., Wickramasinghe, A., & Piña, L. (2015). Global trends in forest ownership, public income and expenditure on forestry and forestry employment. *Forest Ecology and Management*, 352(September), 99-108. <https://doi.org/10.1016/j.foreco.2015.04.011>
- Wu, S. Y., Tang, J. H., & Lin, E. S. (2010). The impact of government expenditure on economic growth: How sensitive to the level of development? *Journal of Policy Modeling*, 32(6), 804–817. <https://doi.org/10.1016/j.jpolmod.2010.05.011>
- www.databoks.katadata.co.id. (2020). Indonesian Foreign Debt Reaches Rp 5,620 Trillion as of December 2019. Retrieved March 30, 2020 from: <https://bit.ly/3dnoeyV>
- www.kemenkeu.go.id. (2018). APBN 2018 Information. Online Webpage. Retrieved March 30, 2020 from: <https://bit.ly/36Bzxx8>
- www.tirto.id. (2018). The average income of women is still far below the salary of men. Retrieved March 30, 2020 from: <https://bit.ly/2MaiDzC>
- Xu, S., Huo, L., & Shang, W. (2015). The impact of wage distributions on economics growth based on multi-agent simulation. *Procedia Computer Science*, 55, 809-817. <https://doi.org/10.1016/j.procs.2015.07.155>
- Yamamoto, Y., Matsumoto, K., Kawata, K., & Kaneko, S. (2019). Gender-based differences in employment opportunities and wage distribution in Nepal. *Journal of Asian Economics*, 64(October), 101131. <https://doi.org/10.1016/j.asieco.2019.07.004>
- Zagler, M. (2005). Wage pacts and economic growth. *Journal of Economic Studies*, 32(5), 420-434. <https://doi.org/10.1108/01443580510622405>

**Appendix 1: Wages of 34 Province in Indonesia (In billion rupiah)**

Province	Year									
	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
Aceh	1.300	1.350	1.400	1.550	1.750	1.900	2.118	2.500	2.718	2.917
Sumatera Utara	965	1.035	1.200	1.375	1.505	1.625	1.812	1.961	2.132	2.303
Sumatera Barat	940	1.055	1.150	1.350	1.490	1.615	1.800	1.949	2.755	2.289
Riau	1.016	1.120	1.238	1.400	1.700	1.878	2.095	2.538	1.888	2.662
Jambi	900	1.028	1.142	1.300	1.502	1.710	1.906	2.358	2.074	2.424
Sumatera Selatan	927	1.048	1.195	1.630	1.825	1.974	2.206	2.266	2.464	2.804
Bengkulu	780	815	930	1.200	1.350	1.500	1.605	2.063	2.596	2.040
Lampung	767	855	975	1.150	1.399	1.581	1.763	1.737	2.244	2.240
Bangka Belitung	910	1.024	1.110	1.265	1.640	2.100	2.341	2.388	2.119	2.976
Kep. Riau	925	975	1.015	1.365	1.665	1.954	2.178	1.908	2.563	2.769
Dki Jakarta	1.118	1.290	1.529	2.200	2.441	2.700	3.100	1.931	1.544	3.941
Jawa Barat	671	732	780	850	1.000	1.000	2.250	3.355	2.099	1.668
Jawa Tengah	660	675	765	830	910	910	-	1.420	1.454	1.605
Di Yogyakarta	746	808	892	947	988	988	-	1.367	1.486	1.571
Jawa Timur	630	705	745	866	1.000	1.000	-	1.337	1.508	1.630
Banten	955	1.000	1.042	1.170	1.325	1.600	1.784	1.388	3.648	2.268
Bali	829	890	967	1.181	1.542	1.621	1.807	1.956	2.127	2.298
NTB	891	950	1.000	1.100	1.210	1.330	1.483	1.631	2.543	2.012
NTT	800	850	925	1.010	1.150	1.250	1.425	1.525	2.560	1.793
Kalimantan Barat	741	802	900	1.060	1.380	1.560	1.739	1.883	2.454	2.211
Kalimantan Tengah	986	1.134	1.327	1.553	1.724	1.896	2.057	2.258	2.047	2.663
Kalimantan Selatan	1.024	1.126	1.225	1.337	1.620	1.870	2.085	2.227	2.421	2.652
Kalimantan Timur	1.002	1.084	1.177	1.752	1.886	2.026	2.161	2.354	2.648	2.747
Kalimantan Utara	-	-	-	-	-	2.026	2.175	2.359	2.193	2.765
Sulawesi Utara	1.000	1.050	1.250	1.550	1.900	2.150	2.400	2.030	2.824	3.051
Sulawesi Tengah	777	827	885	995	1.250	1.500	1.670	2.598	1.965	2.123
Sulawesi Selatan	1.000	1.100	1.200	1.440	1.800	2.000	2.250	1.808	2.177	2.860
Sulawesi Tenggara	860	930	1.032	1.125	1.400	1.652	1.850	2.002	2.222	2.352
Gorontalo	710	762	837	1.175	1.325	1.600	1.875	2.435	2.207	2.400
Sulawesi Barat	944	1.006	1.127	1.165	1.400	1.655	1.864	2.017	-	2.369
Maluku	840	900	975	1.275	1.415	1.650	1.775	1.925	1.825	2.400
Maluku Utara	847	889	961	1.200	1.440	1.577	1.681	1.975	1.660	2.508
Papua Barat	1.210	1.410	1.450	1.720	1.870	2.015	2.237	2.663	2.667	2.934
Papua	1.316	1.403	1.585	1.710	2.040	2.193	2.435	2.421	2.895	3.240

**Appendix 2:** Data on Bank Credit in Indonesia Conducted by Function (in billions of rupiah)

Function	Year								
	2011	2012	2013	2014	2015	2016	2017	2018	2019
Agriculture, Hunting	1.584	3.106	2.943	2.922	2.812	2.651	3.759	4.191	6.874
Fishery	133	106	103	101	102	100	99	112	109
Mining and excavation	321	2	1.265	1	159	2	27	3	3
Processing industry	2.868	3.756	4.356	3.276	3.373	248	249	852	41
Gas and water electricity	9.999	8.127	8.581	7.093	7.048	4	4	4	108
Construction	766	804	1.002	1.037	1.133	31	36	16	15
Wholesale and retail	529	481	804	844	715	584	597	579	511
Provision of accommodation and Provision of food and drink	3.689	40	16	91	39	39	35	36	46
Transportation, warehousing, and communication	2.822	1.916	2.002	1.741	1.819	34	32	40	340
Financial intermediaries	20	408	346	355	453	480	601	540	469
Real estate, rental business, and company services	205	175	171	600	222	176	160	160	157
Administration of government, defense, and social security	198	200	197	199	178	40	40	40	40
Educational services	0	30	30	30	30	30	30	30	38
Health services and social activities	70	80	73	90	96	93	93	96	93
Community services, social culture, entertainment	578	539	550	529	535	516	526	525	523
Individual services serving households	25	21	189	13	13	12	12	12	11
International Bodies and other international Extra Bodies	82	85	-	80	79	77	74	83	82
Activities that have no clear boundaries	5.536	4.702	4.747	4.300	4.253	4.326	4.048	4.754	4.463

**Appendix 3: Government Expenditures Based on Function (In Billion rupiah)**

<b>Function</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019</b>
Public service	495.320	517.167	647.998	705.724	797.763	624.497	275.123	307.147	375.196	440.928
Defense	20.968	47.419	61.226	87.510	86.113	105.907	98.248	117.506	106.832	107.426
Order and security	14.926	22.067	29.096	36.120	34.856	52.941	113.349	135.748	143.305	140.660
The economy	57.359	101.414	105.574	108.082	97.140	177.105	288.344	307.787	382.420	384.134
Living environment	7.889	11.070	8.814	10.590	9.326	9.874	8.941	10.613	13.709	14.031
Housing and public facilities	20.907	23.425	26.440	33.790	26.244	16.981	27.816	27.277	32.198	21.596
Health	18.002	13.649	15.181	17.577	10.893	23.225	59.639	57.225	61.869	59.675
Tourism and culture	1.416	2.901	2.516	1.818	1.469	3.166	4.379	5.770	10.700	3.891
Religion	913	1.397	3.419	3.872	4.001	5.097	8.463	8.870	9.379	10.027
Education	84.086	91.483	105.207	114.969	122.697	143.638	131.974	138.507	145.941	149.877
Social protection	3.457	4.586	5.081	17.107	13.070	20.867	137.737	148.905	173.771	194.903



**Appendix 4: Economics Growth (In Percentage)**

Province	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Aceh	-5,51	2,74	3,28	3,85	2,61	1,55	-0,73	3,29	4,18	4,61
Sumatera Utara	5,07	6,42	6,66	6,45	6,07	5,23	5,1	5,18	5,12	5,18
Sumatera Barat	4,28	5,94	6,34	6,31	6,08	5,88	5,53	5,27	5,29	5,14
Riau	2,97	4,21	5,57	3,76	2,48	2,71	0,22	2,18	2,68	2,34
Jambi	6,39	7,35	7,86	7,03	6,84	7,36	4,21	4,37	4,64	4,71
Sumatera Selatan	4,11	5,63	6,36	6,83	5,31	4,79	4,42	5,04	5,51	6,04
Bengkulu	5,62	6,1	6,85	6,83	6,07	5,48	5,13	5,28	4,98	4,99
Lampung	5,26	5,88	6,56	6,44	5,77	5,08	5,13	5,14	5,16	5,25
Kep. Bangka Belitung	3,74	5,99	6,9	5,5	5,2	4,67	4,08	4,1	4,47	4,45
Kep. Riau	3,52	7,19	6,96	7,63	7,21	6,6	6,02	4,98	2	4,56
Dki Jakarta	5,02	6,5	6,73	6,53	6,07	5,91	5,91	5,87	6,2	6,17
Jawa Barat	4,19	6,2	6,5	6,5	6,33	5,09	5,05	5,66	5,35	5,64
Jawa Tengah	5,14	5,84	5,3	5,34	5,11	5,27	5,47	5,25	5,26	5,32
DI Yogyakarta	4,43	4,88	5,21	5,37	5,47	5,17	4,95	5,05	5,26	6,2
Jawa Timur	5,01	6,68	6,44	6,64	6,08	5,86	5,44	5,57	5,46	5,5
Banten	4,71	6,11	7,03	6,83	6,67	5,51	5,45	5,28	5,73	5,81
Bali	5,33	5,83	6,66	6,96	6,69	6,73	6,03	6,33	5,57	6,35
Nusa Tenggara Barat	12,14	6,35	-3,91	-1,54	5,16	5,17	21,76	5,81	0,12	-4,56
Nusa Tenggara Timur	4,29	5,25	5,67	5,46	5,41	5,05	4,92	5,12	5,11	5,13
Kalimantan Barat	4,8	5,47	5,5	5,91	6,05	5,03	4,88	5,2	5,17	5,06
Kalimantan Tengah	5,57	6,5	7,01	6,87	7,37	6,21	7,01	6,35	6,72	5,64
Kalimantan Selatan	5,29	5,59	6,97	5,97	5,33	4,84	3,82	4,4	5,28	5,13
Kalimantan Timur	2,28	5,1	6,47	5,48	2,76	1,71	-1,2	-0,38	3,13	2,67
Kalimantan Utara	-	-	-	-	-	8,18	3,4	3,55	6,79	6,04
Sulawesi Utara	7,85	7,16	6,17	6,86	6,38	6,31	6,12	6,16	6,31	6,01
Sulawesi Tengah	7,71	8,74	9,82	9,53	9,59	5,07	15,5	9,94	7,1	6,3
Sulawesi Selatan	6,23	8,19	8,13	8,87	7,62	7,54	7,19	7,42	7,21	7,07
Sulawesi Tenggara	7,57	8,22	10,63	11,65	7,5	6,26	6,88	6,51	6,76	6,42
Gorontalo	7,54	7,63	7,71	7,91	7,67	7,27	6,22	6,52	6,73	6,51
Sulawesi Barat	6,03	11,89	10,73	9,25	6,93	8,86	7,31	6,01	6,62	6,23
Maluku	5,44	6,47	6,34	7,16	5,24	6,64	5,48	5,73	5,82	5,94
Maluku Utara	6,07	7,95	6,8	6,98	6,36	5,49	6,1	5,77	7,67	7,92
Papua Barat	13,87	28,47	3,64	3,63	7,36	5,38	4,15	4,52	4,01	6,24
Papua	22,22	-3,19	-4,28	1,72	8,55	3,65	7,35	9,14	4,64	7,33

**Appendix 5: Employment (In Percentage)**

Province	Tahun								
	2010	2011	2012	2013	2014	2015	2016	2017	2018
Aceh	63,17	62,53	61,72	62,24	63,06	63,44	64,26	63,74	64,24
Sumatera Utara	69,51	67,62	69,27	70,62	67,07	67,28	65,99	68,88	71,82
Sumatera Barat	66,36	65,33	64,42	62,92	65,19	64,56	67,08	66,29	67,27
Riau	63,66	63,21	62,52	63,44	63,31	63,22	66,25	64,00	65,23
Jambi	65,78	65,48	64,92	62,68	65,59	66,14	67,54	67,52	68,46
Sumatera Selatan	70,23	68,30	69,61	66,75	68,85	68,53	71,59	69,50	68,69
Bengkulu	71,86	70,22	70,14	67,59	68,29	70,67	72,69	69,30	70,06
Lampung	67,95	65,27	66,30	64,84	66,99	65,60	69,61	67,83	69,67
Bangka-Belitung	66,53	64,19	65,58	65,38	65,45	66,71	68,93	66,72	67,79
Kepulauan Riau	68,85	65,71	66,92	65,92	65,95	65,07	65,93	66,41	64,72
DKI Jakarta	67,83	69,30	71,47	67,79	66,61	66,39	66,91	61,97	63,95
Jawa Barat	62,38	61,34	63,64	62,82	62,77	60,34	60,65	63,34	62,92
Jawa Tengah	70,60	70,15	71,26	70,43	69,68	67,86	67,15	69,11	68,56
DI Yogyakarta	69,76	70,15	71,37	69,29	71,05	68,38	71,96	71,52	73,37
Jawa Timur	69,08	68,06	69,60	69,78	68,12	67,84	66,14	68,78	69,37
Banten	65,34	65,61	65,17	63,55	63,84	62,24	63,66	62,32	63,49
Bali	77,38	75,19	76,58	74,93	74,91	75,51	77,24	75,24	76,78
Nusa Tenggara Barat	66,63	65,71	65,93	65,42	66,63	66,54	71,57	68,49	65,91
Nusa Tenggara Timur	72,77	68,58	69,98	68,15	68,91	69,25	69,18	69,09	70,17
Kalimantan Barat	73,17	72,41	71,40	69,53	69,93	69,68	69,32	68,63	68,65
Kalimantan Tengah	69,86	70,14	69,88	68,50	68,56	71,11	71,30	67,74	70,03
Kalimantan Selatan	71,26	71,94	71,95	69,31	69,46	69,73	71,57	70,06	70,27
Kalimantan Timur	66,41	66,56	66,37	63,50	64,10	62,39	67,79	63,75	64,99
Kalimantan Utara	-	-	-	-	-	63,45	62,40	68,24	67,81
Sulawesi Utara	63,31	62,66	61,54	59,41	59,99	61,28	65,11	60,85	63,01
Sulawesi Tengah	69,22	68,65	65,92	65,56	66,76	67,51	72,28	67,14	69,52
Sulawesi Selatan	64,14	63,43	62,71	60,32	62,04	60,94	62,92	60,98	63,02
Sulawesi Tenggara	71,86	66,73	67,30	65,91	66,87	68,35	73,47	68,70	69,78
Gorontalo	64,42	64,06	62,57	61,46	62,84	63,65	67,89	64,78	67,34
Sulawesi Barat	71,46	69,87	71,71	66,83	71,06	70,27	71,90	66,96	68,46
Maluku	66,48	67,21	62,94	61,93	60,92	64,47	64,51	60,18	62,90
Maluku Utara	65,11	64,57	66,05	64,35	63,88	66,43	66,19	63,65	65,21
Papua Barat	69,29	66,87	67,20	66,69	68,30	68,68	70,05	67,47	67,88
Papua	80,99	77,75	78,18	77,70	78,67	79,57	76,70	76,94	79,11
Indonesia	66,55	65,44	65,65	64,28	64,87	66,85	68,46	66,94	67,95

**Appendix 6: Statistical Analysis**

Transformation Log10					
Wages	Bank Credit	Government Expenditure	Economics Growth	Employment	Unstandardized Residual
5.96	3.21	4.82	5.88	65.69	0.0829
6.0	3.21	4.88	6.83	66.55	0.90478
6.04	3.14	4.96	6.08	65.44	-0.0990
6.11	3.21	5.01	6.26	65.65	0.4530
6.18	3.11	5.04	6.1	64.28	-1.4242
6.23	3.11	5.03	5.52	64.87	-0.8967
6.3	2.72	5.02	5.71	66.85	-1.1136
6.32	2.76	5.06	5.34	68.46	0.9139
6.36	2.83	5.12	5.24	66.94	-0.0638
6.39	2.89	5.14	5.27	67.95	1.2427
Normality Test					
			Unstandardized Residual		
N			10		
Normal Parameters <sup>a,b</sup>					
Mean			.0000000		
Standard Deviation			.00733673		
Most Extreme Differences					
Absolute			.172		
Positive			.172		
Negative			-.107		
Kolmogorov-Smirnov Z			.545		
Asymp. Sig. (2-tailed)			.928		
R = 0.831, R Square = 0.691. Cronbach Alpha = 0.735					
Hypothesis Test with Pearson Correlation Test					
Model	Pearson Correlation	p-value	Result		
Bank Credit → Wages	-0.854	0.002 < 0.05	Negative Significant		
Bank Credit → Economics Growth	0.726	0.017 < 0.05	Positive Significant		
Government Expenditure → Wages	0.928	0.000 < 0.01	Positive Significant		
Government Expenditure → Bank Credit	-0.661	0.038 < 0.01	Negative Significant		
Wages → Economics Growth	-0.811	0.004 < 0.05	Positive Significant		
Wages → Employment	0.548	0.101 > 0.05	Insignificant		
Economics Growth → Government Expenditure	-0.691	0.027 < 0.05	Positive Significant		
Economics Growth → Employment	-0.462	0.179 > 0.05	Insignificant		