

**THE INFLUENCE OF BANK INDONESIA'S POLICY
INTEREST RATE, MONEY SUPPLY (M2), AND WORLD OIL
PRICES ON INFLATION IN INDONESIA**

UNDERGRADUATE THESIS



by:

Wahyu Mustiko Sejati
22011010035/FEB/EP

**DEVELOPMENT ECONOMICS STUDY PROGRAM
FACULTY OF ECONOMICS AND BUSINESS
UNIVERSITAS PEMBANGUNAN NASIONAL "VETERAN"
JAWA TIMUR**

2026

**THE INFLUENCE OF BANK INDONESIA'S POLICY INTEREST
RATE, MONEY SUPPLY (M2), AND WORLD OIL PRICES ON
INFLATION IN INDONESIA**

UNDERGRADUATE THESIS

**Submitted in Partial Fulfillment of the Requirement
the Degree of Bachelor of Economics**



by:

Wahyu Mustiko Sejati
22011010035/FEB/EP

**DEVELOPMENT ECONOMICS STUDY PROGRAM
FACULTY OF ECONOMICS AND BUSINESS
UNIVERSITAS PEMBANGUNAN NASIONAL "VETERAN"
JAWA TIMUR
2026**

APROVAL PAGE

**THE INFLUENCE OF BANK INDONESIA'S POLICY INTEREST RATE,
MONEY SUPPLY (M2), AND WORLD OIL PRICES ON INFLATION IN
INDONESIA**

Compiled by:

**Wahyu Mustiko Sejafi
22011010035/FEB/EP**

**Defended Before and Approved by the Board of Examiners
Department of Development Economics, Faculty of Economics and Business
Universitas Pembangunan Nasional "Veteran" Jawa Timur
Date Approved : 5 Juni 2026**

**Approved by:
Author Supervisor**




**Kiky Asmara, S.E., M.M.
NIP. 198106252025212026**

**Board Of Examiner:
Chairperson**



**Dra. Ec. Niniek Imaningsih, M.P.
NIP.195908281990031001**

Examiner



**Sishadiyati, S.E., M.M.
NIP. 198012162021212006**

**Acknowledge by
Dean Of the Faculty Of Economics And Business
Universitas Pembangunan "Veteran" Jawa Timur**



**Dr. Dra. Ec. Tri Kartika Pertiwi, M.Si, CRP.
NIP. 196304201991032001**

STATEMENT OF ORIGINALITY OF THESIS

I, the undersigned :

Name : Wahyu Mustiko Sejati
NPM : 22011010035
Program : Bachelor's Degree (S1)
Study Program : Development Economics
Faculty : Economics and Business

Hereby declare that this undergraduate thesis (Skripsi) does not contain any part of another scientific work that has been submitted to obtain an academic degree at any institution of higher education, nor does it contain any work or opinion that has previously been written or published by another person or institution, except where properly cited in writing within this document and fully listed in the bibliography.

I further declare that this scientific document is free from any elements of plagiarism. Should any indication of plagiarism be found in this thesis in the future, I am willing to accept sanctions in accordance with the applicable laws and regulations.

This statement is made truthfully, without coercion from any party, and is intended to be used as it should properly be.

Surabaya, 22 April 2026
Who made the statement



Wahyu Mustiko Sejati
NPM. 22011010035

FOREWORD

The Almighty God is praised and thanked for His love, wisdom, and grace, which allowed the author to finish the thesis "THE INFLUENCE OF BANK INDONESIA'S POLICY INTEREST RATE, MONEY SUPPLY (M2), AND WORLD OIL PRICES ON INFLATION IN INDONESIA" effectively and on schedule. One of the prerequisites for earning a bachelor's degree in the Development Economics Study Program at Pembangunan Nasional "Veteran" Jawa Timur University's Faculty of Economics and Business is completing this thesis..

The author realizes that in the process of writing this thesis, the author cannot walk alone. For the completion of this thesis, the author expresses the highest respect and gratitude to Mrs. Kiky Asmara, S.E., M.M., as the supervising lecturer who has devoted time, energy, and that to guide and direct the author throughout the thesis writing process, enabling it to be completed successfully. The writing of this thesis is inseparable from the assistance, support, motivation, and cooperation from various parties. For that reason, the author also expresses gratitude to :

1. Dr. Ir. Akhmad Fauzi, MMT as the Rector of Universitas Pembangunan Nasional "Veteran" Jawa Timur.
2. Mrs. Dr. Dra. Ec. Tri Kartika Pertiwi, M.Si, Crp as the Dean of the Faculty of Economics and Business Universitas Pembangunan Nasional "Veteran" Jawa Timur.
3. Mr. Riko Setya Wijaya, S.E., M.M., as the Head of the Development Economics Study Program Universitas Pembangunan Nasional "Veteran"

Jawa Timur. Thank you for your sincerity, care, and all the support you have always provided, which has been a guiding light for the author in navigating the dynamics of university life.

4. Mrs. Kiky Asmara, S.E., M.M., as the beloved Academic Advisor. Endless gratitude for the extraordinary patience, kindness, and the time you always dedicate amidst your busy schedule to embrace and guide the author until this research can be completed well.
5. Mr. and Mrs. Lecturers of the Development Economics Study Program at the National Development University "Veteran" East Java. Respect and reverence from the author are extended for all the drops of knowledge, sincere guidance, and valuable motivation that have shaped the author's mindset and become an invaluable life asset.
6. Every step I take is a dedication to my greatest role model, Father Sukarsan. The absence of the opportunity to experience campus life in any way diminishes his greatness in educating. Thru motivation that ignites the spirit and unwavering support, he proved that a father's love can guide his child across the gates of higher education as a graduate.
7. My gateway to heaven, Mother Ainiyah. The most crucial figure behind the author's academic success. Although he never sat in a university seat, he is the main architect behind this bachelor's degree. Thru a continuous stream of prayers, motivation, and the fire of enthusiasm he instilled, the author was finally able to complete this study with determination.
8. Fellow comrades in the Development Economics program at UPN "Veteran" East Java, Class of 2022. We came as strangers, grew as a team,

and graduated as winners. Thank you for the solidarity, support, and extraordinary dynamics during our education at this national defense campus. Our struggle in the lecture halls has come to an end, but this bond will remain eternal.

9. The Extended Family of BEM FEB UPN "Veteran" East Java Period 2023-2024, for all the spaces of process, the sincerity of brotherhood, and the unwavering moral support throughout our service period. The togetherness with you all is a piece of the most beautiful memories that have matured and accompanied the writer's journey until the end of this study period.
10. The Extended Family of GIBEI FEB UPN "Veteran" East Java Period 2024-2025, as a platform for the writer's personal and organizational development. The deepest gratitude for the extraordinary space for growth, professional work synergy, and consistent moral support provided throughout the service period, enabling the author to complete this final task well.
11. The Extended Family of ARSA Surabaya Period 2025-2026, for the space of dedication, social collaboration, and valuable experiences that have been given to the author. Thank you for the moral support and the supportive environment during this administration, which provided positive energy and motivation for the author in completing their academic studies.
12. The Research and Community Service Institute (LPPM) of UPN "Veteran" East Java, thank you for the golden opportunity given to the author to dedicate knowledge in the strategic program of the "KKN KEBANGSAAN XIII", as well as for the extraordinary guidance and facilities provided thru

the Business Incubator. All the valuable experiences, innovation ecosystems, and support given have become important pillars that inspire and support the smooth completion of the author's final thesis.

13. My fellow warriors in NORGENK, consisting of 7 members, thank you for being living witnesses to my ups and downs in completing this thesis. Thank you for every random conversation, late-night discussions, and relentless encouragement so that I wouldn't get lazy and could graduate quickly. This bachelor's degree comes with the bonus of beautiful stories with all of you.
14. The writer's small family, IMPORTANT PEOPLE, Bagas, Happy, Fikri, Evelyn, Firda, and Dona, for all the moral support, entertaining craziness, and extraordinary loyalty throughout the college years. Your presence is a positive energy that always strengthens the author's shoulders, enabling them to step forward until reaching this finish line.
15. My fellow comrades from the "KKN KEBANGSAAN XIII" Year 2025, namely Azizah, Iklhas, Ummu, Eong, Ridho, Ridwan, and Fahmi. The author expresses boundless gratitude and thanks for a month full of sincerity, dedication, and togetherness under the auspices of Hasanuddin University and the Ministry of Research, Technology, and Higher Education. Being part of your small family of seven is one of the most beautiful blessings at the end of the writer's study period. Thank you for being a home, embracing what is worth being proud of.
16. The Pride of Chelsea F.C., whose struggles on the green field have always been both entertainment and motivation for the writer. Thank you for accompanying the author thru long nites while staying up late to write this

thesis, with epic matches full of adrenaline that taught the meaning of perseverance.

17. My large circle of friends in the BELANEGARA 69 group, namely Surya, Fahmi, Alif, Firman, William, Canif, Lutfi, Pras, Ibro, Adi, Andi, Uzik, Sahil, Dewa, Andika, The writer's large circle of friends in the BELANEGARA 69 group, namely Surya, Fahmi, Alif, Firman, William, Canif, Lutfi, Pras, Ibro, Adi, Andi, Uzik, Sahil, Dewa, Andika, Zulfan, Daffa, Dendy, and Trisna, the second family that always makes college life lively and exciting. Thank you so much for your solidarity, the laughter that always melts away the fatigue, and the unwavering support. Spending time with a circle as lively and solid as yours is the best story during my time at this campus.

18. The author also expresses gratitude to those who have been part of the author's life journey. Although no longer together, their presence once brought color, lessons, and happiness that strengthened the author. Many things we went thru together, and without the writer realizing it, those experiences also shaped the writer's perseverance to complete this thesis. Thank you for being a part of the story that has matured me, and may happiness always accompany your path.

19. For myself, thank you for holding on this far. Thank you for continuing to move forward despite often feeling doubtful, tired, and wanting to give up. This thesis may not be perfect, but the process has become a deeply meaningful experience and personal learning journey. and this thesis is a testament to real struggle and something to be proud of.

In conclusion, I hope that God Almighty rewards all parties who have helped the author realize that this thesis is still far from perfect, but nonetheless, this thesis has been made to the best of the author's ability. Therefore, the author hopes for criticism and suggestions from readers and hopes that this thesis will be beneficial for those in need as well as for readers for future research.

Surabaya 20 Juni 2026

Wahyu Mustiko Sejati

TABLE OF CONTENTS

FOREWORD	i
TABLE OF CONTENTS	viii
LIST OF FIGURES	xi
LIST OF TABLES	xii
LIST OF APPENDICES	xiii
ABSTRACT	xiv
CHAPTER I	1
1.1 Background.....	1
1.2 Problem Formulation.....	6
1.3 Research Objectives.....	7
1.4 Research Scope.....	7
1.5 Research Benefits.....	8
CHAPTER II	2
2.1 Theoretical Framework.....	2
2.1.1 Spill Over Effects.....	2
2.1.2 Quantity Theory of Money.....	11
2.1.3 Inflation.....	13
2.1.4 Interest Rate.....	17
2.1.5 Liquidity Preference Theory.....	20
2.1.6 Monetary Policy Transmission.....	21
2.1.7 Money Supply (M2).....	24
2.1.8 World Oil Prices.....	25
2.2 Previous Research.....	26
2.3 Relationships Between Variables.....	28
2.3.1 The Relationship Between Interest Rates and Inflation in Indonesia.....	28
2.3.2 The Relationship Between the Money Supply (M2) and Inflation in Indonesia.....	29
2.3.3 The Relationship Between World Oil Prices and Inflation in Indonesia.....	30
2.4 Research Framework.....	32
2.5 Hypothesis.....	33
CHAPTER III	34
3.1 Research Approach.....	34
3.1.1 Bank Indonesia's Policy Interest Rate (X_1).....	34
3.1.2 Money Supply (M2) (X_2).....	34

3.1.3 World Oil Prices (X_3)	35
3.1.4 Inflation (Y)	36
3.2 Sample Determination Technique	36
3.3 Data Collection Technique	37
3.4 Analysis Technique and Hypothesis Testing	37
3.4.1 Model Equation	38
3.4.2 Stationarity Test (Augmented Dickey-Fuller)	39
3.4.3 Cointegration Test (<i>Bounds Test</i>)	41
3.4.4 Long-Run and Short-Run Relationship Estimation	42
3.4.5 Heteroskedasticity Test (Breusch-Pagan-Godfrey)	43
3.4.6 Autocorrelation Test (Breusch-Godfrey Serial Correlation LM Test) ..	44
3.4.7 Model Stability Test (CUSUM Test)	44
CHAPTER IV	
RESULTS AND DISCUSSION	46
4.1 Research Results	46
4.1.1 Overview of Inflation and Indonesia's Macroeconomic Conditions	46
4.1.2 Development of Indonesia's Inflation	47
4.1.3 Development of Bank Indonesia's Policy Interest Rate	49
4.1.4 Development of the Money Supply (M2)	50
4.1.5 Development of World Oil Prices	52
4.2 Stationarity Test Results (ADF)	54
4.3 ARDL Model Estimation Results	56
4.3.1 Optimal Lag Selection	56
4.3.2 ARDL Bounds Test	57
4.3.3 Long-Run Coefficient Relationship	58
4.3.4 Short-Run Coefficients	58
4.4 Diagnostic Test Results	59
4.4.1 Heteroskedasticity Test	59
4.4.2 Uji Autokorelasi	60
4.4.3 Stability Test	61
4.3 Discussion	62
4.3.1 The Effect of Interest Rates on Inflation in Indonesia	62
4.4.2 The Effect of Money Supply (M2) on Inflation in the Long Run and Short Run	65
4.4.3 The Effect of World Oil Prices on Inflation in Indonesia	66
CHAPTER V	69

5.1	Conclusions	69
5.2	Recommendations	70
	REFERENCES.....	72
	APPENDIX.....	76

LIST OF FIGURES

Figure 1.1 Indonesia's Inflation from 2014-2025.....	2
Figure 2.1 Conceptual Framework.....	32
Figure 3.1 Stationarity Test Framework.....	39
Figure 4.1 CUSUM.....,	61
Figure 4.2 CUSUMQ.....	62

LIST OF TABLES

Table 2.1 Previous Research.....	26
Table 4.1 Development of Indonesia's Inflation Percentage 2014-2025.....	48
Table 4.2 Development of Indonesia's Interest Rate Percentage 2014-2025.....	49
Table 4.3 Development of Indonesia's Money Supply (M2) Percentage 2014-2025.....	51
Table 4.4 Average Annual World Oil Price, 2014-2025.....	52
Table 4.5 Stationarity Test at Level.....	55
Table 4.6 Stationarity Test at First Difference.....	55
Table 4.7 Optimal Lag.....	56
Table 4.8 Bounds Test.....	57
Table 4.9 Long-Run Estimation Results.....	58
Table 4.10 Short-Run Estimation Results.....	58
Table 4.11 Heteroscedasticity Test.....	60
Table 4.12 Autocorrelation Test.....	60

LIST OF APPENDICES

Appendix 1 Research Variable Data for 2014-2025.....	76
Appendix 2 ADF Stationary Test Results.....	79
Appendix 3 ARDL Output.....	83
Appendix 4 Long Run Form & Bounds Test.....	84
Appendix 5 Model Selection Criteria Table.....	85
Appendix 6 Heteroscedasticity Test Output.....	86
Appendix 7 Autocorrelation Test Output.....	87
Appendix 8 CUSUM and CUSUMQ Stability Test Output.....	88

The Effect of Bank Indonesia Policy Interest Rates, Money Supply (M2), and World Oil Prices on Inflation in Indonesia

Wahyu Mustiko Sejati

Department of Development Economics, Faculty of Economics and Business

UPN "Veteran" Jawa Timur

Email: 22011010035@student.upnjatim.ac.id

ABSTRACT

This study aims to analyze the effects of the Bank Indonesia policy interest rate, money supply (M2), and world oil prices on inflation in Indonesia during the period January 2014-December 2025. The study employs monthly secondary data obtained from Bank Indonesia, Statistics Indonesia (BPS), and the U.S. Energy Information Administration (EIA). The Autoregressive Distributed Lag (ARDL) approach is used to examine both the short-run and long-run relationships among the variables. The results indicate the existence of a long-run cointegration relationship between the policy interest rate, money supply (M2), world oil prices, and inflation. In the long run, the policy interest rate has no significant effect on inflation. Money supply (M2) has a negative and significant effect on inflation, while world oil prices have a positive and significant effect on inflation. In the short run, world oil prices also significantly affect inflation, whereas the policy interest rate remains insignificant. These findings suggest that world oil prices and money supply play a more dominant role in influencing inflation in Indonesia than the policy interest rate of Bank Indonesia.

Keywords: Inflation, Interest Rate, Money Supply, World Oil Price, ARDL