# Analysis of the Effect of Macroeconomic Variables on Happiness in Indonesia

## Septarina Christin Br Ginting[1], Sya'ad Afifuddin[2], Rahmanta[3]

[1,2,3]Faculty of Economics and Business, Universitas Sumatera Utara, Indonesia

Corresponding Author: Septarina Christin Br Ginting

## ABSTRACT

Happiness has become one of the indicators in measuring the level of success of economic development lately. Happiness as an indicator of development success is in line with the new schools of thought in economics, namely economics of happiness and economics of behavior. This happiness indicator is in line with the sustainable development goals driven by the United Nations agency. This study aims to analyze the effect of macroeconomic variables on happiness in Indonesia. The macroeconomic variables are gross regional domestic product per capita, poverty, provincial government expenditures for the education function and for the health function. Happiness data is obtained from the results of a survey of measuring the level of happiness conducted by the Central Statistics Agency which issues a happiness index in 33 provinces in Indonesia. The form of this research is descriptive-quantitative and sourced from secondary data obtained from the publications of the Central Statistics Agency, the Ministry of Education, the Ministry of Health and the National Development Planning Agency. Data analysis uses a panel data regression approach, with serial data in 2014 and 2017 for the number of observations in 33 provinces in Indonesia. The results of the research analysis show: (1) gross regional domestic product per capita has a positive and significant effect on happiness in Indonesia; (2) poverty has a negative and significant effect on happiness in Indonesia; (3) provincial government spending on education function has a positive and significant effect on happiness in Indonesia; (4) provincial government spending on health function has a positive and insignificant effect on happiness in Indonesia.

## INTRODUCTION

Indicators of the success of economic development so far are measured by monetary indicators such as income per capita, non-monetary indicators such as the quality of life index, and mixed indicators such as the human development index (Arsyad, 2016). Happiness in terms of individual (partial-subjective) and community (aggregate-objective) points of view has not yet become a well-known indicator in measuring the level of development success because it is considered immeasurable (nonparametric), highly subjective-qualitative, difficult to calculate with numerical units, and it is felt that it is not a study in the field of economics, but in the field of psychology.

The success of Richard H. Thaller in winning the Nobel Prize in economics in 2017 has opened the mindset of world economists and sparked a new economic flow, namely behavioral economics. Thaller has succeeded in opening the paradigm of researchers so that they have many alternatives to develop quantitative and qualitative research models (mixed methods) and with a cross-scientific approach (interdisciplinary approach). Economics as part of social science can build synergies with the fields of religion, philosophy, psychology, sociology, culture, politics and law to develop a comprehensive research model (Hartono, 2019).

This phenomenon provides a clear picture of the extent to which rich countries cannot be happier through simple tools such as economic growth in the concept of national income. Higher income can increase happiness to some extent. The fact is that the economic gap between rich countries and poor countries is widening along with the rapid economic growth. In developing countries the search for welfare is still focused on meeting basic needs, reducing poverty and income inequality. In this case the material aspect is still the main search. In developed countries that search has long ended. This will certainly make a difference in efforts to achieve happiness.

The concept of happiness before it became a scientific discussion and study in the field of economics, of course, had first become the subject of attention from psychology. This study is interesting from an economic point of view, because the psychological state of an individual depends a lot on many factors outside the individual, including the socioeconomic conditions of the country in which he lives. Seligman (2002), the founder of the positive psychology school through his work, suggests that there are differences in the achievement of prosperity and happiness in rich countries and poor countries. In poor countries, individuals who are also poor tend to focus on meeting basic material needs. In countries that are not yet rich, having a lot of money can mean being happier, but in countries that are already rich or prosperous, where everyone has almost all of their basic needs, increasing wealth has little effect on happiness. When the income of the poor increases, they get life satisfaction because of ending hunger, improved nutrition, better learning opportunities, safe childbirth, continuing education to a higher level, and tourism activities. Likewise at the macro level, the government prioritizes a higher gross national product increase. The increase in gross national product is expected to have a trickle down effect and improve the quality of life so as to achieve complete happiness or eudaimonia. In rich countries happiness shifts to more immaterial concepts. They are no longer concerned about getting food to fill them up but have turned to how to improve food health. Most individuals there have enjoyed a variety of foods, decent housing, and diverse facilities. They have ended the disaster of stunting in their babies, but the disaster is still happening in other parts of the world, especially in poor countries. Ironically, the efforts of developed countries to achieve prosperity often have to exploit resources in poor and developing countries. Not much different from the context in Indonesia, efforts to achieve prosperity in the capital and its surroundings are achieved from exploiting resources in various regions from Aceh to Papua. This is one of the drivers of the emergence of a decentralized and regional autonomy system in Indonesia.

Happiness has become one of the indicators in measuring the level of success of economic development lately. Happiness as an indicator of development success is in line with the new schools of thought in economics, namely economics of happiness and economics of behavior. This happiness indicator is in line with the sustainable development goals driven by the United Nations agency.

According to the Organization for Economic Co-Operation and Development proposed by Gurria (2014), people's happiness has a present dimension and a future dimension. The government as an instrument of the state has an important role in realizing the happiness of society today and guaranteeing happiness in the future through the provision of public goods, efforts to conserve nature, monetary and fiscal policies, political policies and socio-economic conditions, in other words, seeking a conditional macroeconomic situation to realize happiness both individually and in aggregate.

The data shows the happiness index of the Indonesian state based on the 2013-2020 world happiness report, Indonesia's happiness index from 2013 to 2020 (except

2014) is around 5 in the 0-10 interval and among 153 countries in the world, Indonesia is at the bottom. It started in 2013 at 75th rank and then rose to 72nd in 2015, then continued to fall, to 84th position in 2020.

Based on World Bank publications, Indonesia's macroeconomic situation in 2018 improved with economic growth in the range of 5 percent, nominal gross domestic product position of Rp14,837.4 trillion or per capita of US$3,927. This number brings Indonesia up in class to become an upper middle-income country. When compared with the 2019 world happiness report, Indonesia's happiness is at the lowest position in 2018 for the last seven years. Thus, it appears as if the economic situation is not fully correlated with happiness. This difference may be caused by the withdrawal of different data source years, the happiness data published by the world happiness report in March each year is taken based on the situation in the previous year, meaning that 2018 is the data source for happiness which was published in March 2019. Meanwhile, indicator data macroeconomics from the World Bank is published at the end of each year based on economic data for that year, meaning that 2018 conditions are the data source for macroeconomic indicators in 2018.

The factors that influence happiness can be seen from various aspects and approaches. The happiness index issued by Central Statistics Agency data which is the source of data in this study, is generated from three dimensions of approach, namely life satisfaction, feelings and meaning of life. This approach is a combination of qualitative-quantitative methods that are in line with the flow of behavioral economics. The value of happiness which is subjective well being is of course strongly influenced by objective conditions. Various literatures show that although it is subjective, the level of happiness can be influenced by several things that are measurable quantitatively and objectively such as macroeconomic indicators. The concept of happiness from the point of view of economics, which is

essentially divided into two scopes, namely microeconomics and macroeconomics, of course sees the study of happiness from a partial-subjective (micro) and aggregate-objective (macro) point of view, both of which are interrelated. Happiness partially-subjectively and aggregate-objectively is certainly influenced by factors outside the individual such as government policies and macroeconomic conditions which are objective factors that are felt by all individuals or communities in an area, regardless of the personal circumstances of the individuals in the community.

Happiness can be influenced by internal and external factors. Internal factors that can influence are positive emotions. The external factors that can affect the level of individual happiness are social status, type of work, income, age, education, gender, marital status, and health (Karoma, 2020). Macroeconomic factors also determine happiness, according to Frey and Stutzer (2002) in addition to demographics and the political environment, economic development affects individual happiness. Per capita income, unemployment rate and inflation are considered to have an effect on individual happiness.

The macroeconomic variables are gross regional domestic product per capita, poverty, provincial government expenditures for the education function and for the health function.

Macroeconomic factors in economic development such as the level of income per capita, unemployment, poverty, economic growth and government spending are related to efforts to improve the welfare of the people. One of the indicators of people's welfare is an increase in the happiness of the people individually. Various studies have been conducted by economists who found a result that financial security in the form of income is only one factor that affects the level of individual happiness (Todaro and Smith, 2011). This is able to explain that many other factors affect the level of individual happiness. A survey conducted by Richard Layard found that family

relationships, financial circumstances, work, community, friendships, health, personal freedom, and personal values were all factors that could influence an individual's average level of happiness. The existence of findings like this is able to explain the difference in the level of happiness in each country, especially in developing countries, which will be different even though they have the same income level, depending on the macroeconomic indicators that occur in that country.

This study aims to analyze the effect of macroeconomic variables on happiness in Indonesia.

## RESEARCH METHODS

The form of this research is descriptive-quantitative. Research that aims to analyze the degree of relationship and pattern of influence between two or more variables, where this research is built on theory and is expected to build a theory that functions to explain.

According Pandiangan et al. (2018) in Sugiyono, data sampling is the selection of samples based on certain characteristics that are considered to have relevance to the characteristics of the population that have been known previously. Happiness data is obtained from the results of a survey of measuring the level of happiness conducted by the Central Statistics Agency which issues a happiness index in 33 provinces in Indonesia.

Library research of reference sources is a form of research that uses library facilities by examining theoretical discussions from various books, articles, and scientific works related to writing (Pandiangan, 2018). Sourced from secondary data obtained from the publications of the Central Statistics Agency, the Ministry of Education, the Ministry of Health and the National Development Planning Agency.

Data analysis uses a panel data regression approach, with serial data in 2014 and 2017 for the number of observations in 33 provinces in Indonesia.

According to Widarjono (2018:363) panel regression analysis is a regression by combining time series data with cross sections (panel pooled data).

## RESULTS
### General Description

Indonesia is the largest archipelagic country in the world and has a strategic area because it is located between 6º LU-11º08 LS dan 95º BT-141º B. Bless to being at this latitude, several islands are located on the equator or the equator, therefore, day and night have almost the same time, which is 12 hours. Based on the broad geographical location, the territory of Indonesia is divided into 2 regions, namely the western region and the eastern region, then divided into 3 time zones, namely west indonesian time (WIB), central indonesian time (WITA) and eastern indonesian time (WIT).

Indonesia is flanked by the Indian and Pacific oceans, as well as two continents namely Asia and Australia. There are 5 major islands, namely Sumatra, Kalimantan, Papua, Sulawesi and Java.

### Descriptive Statistics

The data variables used in this study are the gross regional domestic product per capita, poverty, education function, health function, happiness.

Based on the output of statistical data, it can be seen that the happiness variable has an average value of 70.05 with 66 observations, a median value of 70.28 and a standard deviation of 2.34. The maximum value is 75.68 which is the happiness value of North Maluku province in 2017 and the minimum value is 60.97 which is the happiness value of Papua province in 2014.

The gross regional domestic product per capita variable has an average value of 37.59 with 66 observations, a median value of 29.45 and a standard deviation of 29.65. The maximum value obtained is 157.64 which is the per capita income of the DKI Jakarta province in 2017 and the minimum value is 10.74 which is the per capita

income of the East Nusa Tenggara province in 2014.

The poverty variable has an average value of 11.56 with 66 observations, a median value of 9.83 and a standard deviation of 6.02. The maximum value obtained is 28.93 which is the poverty rate in Papua province in 2014 and the minimum value is 3.78 which is the per capita income of East Nusa Tenggara province in 2014.

The local government expenditure variable for education function has an average value of 10.72 with 66 observations, a median value of 9.2 and a standard deviation of 6.68. The maximum value obtained is 29.2 which is the expenditure on the function of education in the province of East Nusa Tenggara in 2017 and the minimum value of 0.87 which is the

expenditure on the function of education in the province of Papua in 2014.

The local government expenditure variable for health function has an average value of 9.43 with a total of 66 observations, a median value of 9.1 and a standard deviation of 2.23. The maximum value obtained is 16.44 which is health function expenditure in DKI Jakarta province in 2014 and the minimum value is 3.61 which is health function expenditure in Riau province in 2014.

**t Test**

The t-test was conducted to see how far the influence of one independent variable individually explains the variation of the dependent variable.

Table 1. t Test

| Dependent Variable: Happiness | Model Fixed Effect | t-sig | Information |
|---|---|---|---|
| Constant | 71.345 | 0.0000 | Significant at the 5 Percent Alpha Level (95%) |
| Gross Regional Domestic Product per Capita | 0.124 | 0.0890 | Significant at the 10 Percent Alpha Level (90%) |
| Poverty | −0.741 | 0.0425 | Significant at the 5 Percent Alpha Level (95%) |
| Education Function | 0.154 | 0.0000 | Significant at the 1 Percent Alpha Level (99%) |
| Health Function | 0.101 | 0.5405 | Not Significant |

The results of the research analysis show: (1) gross regional domestic product per capita has a positive and significant effect on happiness in Indonesia; (2) poverty has a negative and significant effect on happiness in Indonesia; (3) provincial government spending on education function has a positive and significant effect on happiness in Indonesia; (4) provincial government spending on health function has a positive and insignificant effect on happiness in Indonesia.

## CONCLUSION AND SUGGESTION

The results of the research analysis show: (1) gross regional domestic product per capita has a positive and significant effect on happiness in Indonesia; (2) poverty has a negative and significant effect on happiness in Indonesia; (3) provincial government spending on education function has a positive and significant effect on happiness in Indonesia; (4) provincial

government spending on health function has a positive and insignificant effect on happiness in Indonesia.

Based on the conclusions obtained in this study, some suggestions that can be given to increase the happiness of the population in Indonesia as indicated by the indicators of increasing the Happiness Index are as follows:

1. For provincial-level local governments throughout Indonesia, it is necessary to continue to encourage the increase of per capita gross regional domestic product and government spending on education and health as well as poverty alleviation efforts. Local governments need to continue to innovate programs and not only depend on and wait for national programs carried out by the central government. Especially in the health sector which has not significantly affected the happiness of the population, local governments are expected to

further improve the quality of health service programs at the first level such as Puskesmas, health clinics and general practitioners who are partners with the Social Security Administering Body (BPJS), which so far have been deemed unsatisfactory. Improving health services at the first level, namely by preparing qualified doctors, midwives, nurses and other health workers in each Puskesmas through better selection of candidates for civil servants and not only assessing cognitive abilities but also behavioral assessments, conducting strict supervision of health services, ensuring availability of drugs, providing adequate health facilities.

2. For the central government to carry out development evenly in every province and synergize between ministries, state institutions and local governments because all programs in the economic and social welfare fields cannot stand alone. In the economic field, such as increasing gross domestic product through increased domestic and foreign investment, exports, and government spending. In the field of social welfare, such as School Operational Assistance, improving the quality of BPJS services in the National Health Insurance – Healthy Indonesia Card (JKN-KIS) program, the Family Hope Program (PKH), stunting management, protection of workers and labor rights, poverty alleviation and prevention.

3. As the organizer of the social security program, it is hoped that in the field of education, the organizers of the JKN program through the Ministry of Health and the Social Security Administering Agency will continue to improve the quality of services.

4. For research development, especially in the study of the economics of happiness and behavioral economics, the research results and limitations found in this study can be used as a source of ideas for future researchers. Future researchers can increase the number of observations, examine the influence of other variables on happiness from an aggregate-objective and partial-subjective point of view, and increase the contribution of this research to efforts to increase welfare and happiness.

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