

The Puzzle of Relationship between the Economic Growth and Happiness: An Inter-Country Analysis

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ABSTRACT

In economic research, the relationship between economic growth and happiness is ambiguous. Happiness does not show a positive or negative dependence on economic growth over time. Based on the theoretical foundations and using interdisciplinary concepts in economics, e.g. political economy, technology philosophy, generalized method of moments (GMM), and data of 153 countries over the period 2000–2018. The total number of observations in this research is 13,770. Also, the model of this research has been estimated by the software Eviews. This paper tries to show that the one-dimensional look at economic growth and ignoring the growth consequences, including emotional gap, environmental degradation, and oligarchy (lack of healthy democracy), have a crucial role in creating growth and happiness. The main purpose of this study is to accept or reject the theory of Easterlin, called the “Easterlin puzzle”. According to Easterlin puzzle, the growth and development of countries do not increase the happiness of the people in those countries. Based on the model estimated in the present study for 153 countries, the theory of Easterlin is not approved, and economic growth has had a small but significant effect on short- and long-run happiness in these countries.

Key words: *Emotional gap, economic growth, happiness, GMM model, oligarchy*

JEL Classification: D60, F02, O17, Q50

INTRODUCTION

For neoclassical economists, the measures of well-being include wealth, asset, consumption, or the sum of money held by each individual. However, happiness has a special place in the concept of welfare. According to empirical studies, happiness is very important in human economic performance, because life satisfaction will improve people’s intelligence, competence, and productivity. While grief reduces productivity. So, countries where people are happy, economic growth is often higher (Li and Lu, 2009). There are many factors that affect happiness. Variables such as life expectancy, income distribution, education, social freedom, employment, etc. are all factors that affect the happiness in a society. Economists have always wondered whether economic growth bring happiness. In order to answer this question, and based on empirical studies, we try to examine if the puzzle of Easterlin paradox (Easterlin, 1974) is confirmed in different countries. According to Easterlin paradox theory, economic growth does not make people and communities happy. Whereas, according to many economists, increasing

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economic growth will increase prosperity, and increase the happiness of individuals in a society. The main purpose of this study is to investigate the puzzle of Easterlin paradox. Most research in Iran have addressed the effects of inflation and unemployment on happiness. Yet, the main feature of the present study comparing to other research is the wide range of 153 countries and using social, political, and economic indices to study the effects of these variables on happiness. While these two features have not been taken into consideration.

The remainder of this paper is organized as follows. Section 2 describes the theoretical foundations with respect to the oligarchy, technology, and the economic growth model. Section 3 reviews the empirical literature on the subject matter, and provides a summary of the literature in a table. In Section 4, the ambiguity of growth and happiness are explained. Section 5 introduce and estimates the model, and finally Section 6 concludes the paper.

LITERATURE REVIEW

For the first time, the debate of happiness and its effect on the economy was studied by Easterlin in the United States. He showed that with the economic growth, happiness in the United States did not increase much. So, for the first time, Easterlin paradox came up. According to this puzzle, there is no relationship between economic growth and people's happiness. The paradox states that at a point in time happiness varies directly with income both among and within nations, but over time happiness does not trend upward as income continues to grow. Various theories have been advanced to explain the Paradox, but the Paradox itself is solely an empirical generalization. Yet, almost all post-Easterlin economists rejected this theory (Stevenson and Wolfers, 2008). So, it has always been a question among economists whether economic growth can bring happiness. The existence of the paradox has been strongly disputed by other researchers. Kanbe and Ratzel (2010) said that the evidence shows an inverse U-shaped relationship between income and happiness. They claim that in the early stages of economic growth, happiness increases until it reaches its maximum point, and then along with economic growth happiness will decrease. Because the demand for higher income requires more work and more work reduces utility and happiness.

Economics science is organized according to growth patterns, and almost one-dimensional economic growth is the main goal of government planning in most countries. Entrepreneurship and creativity move in the direction of further growth, and it seems that any scientific theory that can accelerate economic growth is more valuable. Yet, the economic growth has had very significant effects, such as an increase in the emotional gap, environmental degradation, the consolidation of oligarchy systems, which we have very little thought about.

Economic growth has increased much, but there have also been paradoxes, one of which is the paradox of growth and happiness. Emphasizing that economic growth is valuable and essential for community life, we try to show that although economic growth and the increase in consumer goods and services bring about happiness, its negative effects on other aspects of life impose a great deal of suffering on communities, resulting in a decline in happiness in communities.

In order to better understand and take a different look at the economic growth, it is necessary to first study the two concepts of oligarchy and technology, then look at economic growth models.

Democracy and oligarchy

Can government impact directly on happiness? Wagner et al. (2009) who conclude that higher-quality institutions increase satisfaction with democracy. For this reason good governance can also impact on happiness. Better rule of law, lower corruption, less regulation of political participation are all associated with higher degrees of satisfaction. Therefore, there is a positive relationship between democracy and happiness.

In a simple sense, oligarchy refers to a form of government in which a small group controls the power and authority of the country. In other words, the country is run by few people. Oligarchs are the clever dictators who, with the appearance of democracy, use the functions and thoughts of the dictatorial system to maximize their personal interests at the expense of the poverty and suffering of the citizens. In almost 85% of countries, there is oligarchy with different ranges. Douglass North emphasized the role of security and the military in shaping and sustaining oligarchy. The game of security begins: the group that overthrows security, or the group that provides security, seizes power, and always keeps the fear of insecurity alive for the sake of self-preservation. Oligarchs as political geniuses set themselves up with enough knowledge to achieve their goals, quickly destroy competitors, seize key resources, and, after the stability of their rule, begin to form exploitative political and economic institutions.

Oligarchy systems by exploiting institutions disrupt the process of natural economic growth in society. Unless the inclusive institutions are formed, and citizens break the vicious circle of oligarchy, they will always be in poverty and economic crises. The cause of poverty and wealth in different countries is more involved with politics than it is about economics. It is the policy that determines the process of economic growth and development that brings about prosperity or poverty in societies.

In almost every continent, oligarchy is associated with the industrial economy, affecting the path of economic growth and development in many countries. Chart 1 shows the average trend of oligarchy in all countries around the world over the period 1800–2010. In many countries, oligarchy has entered the form of democracy, and has had its destructive effects.

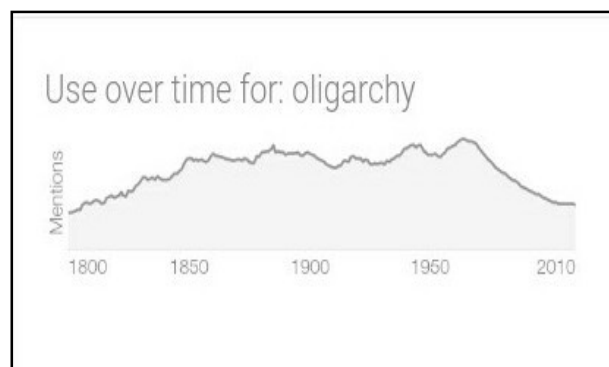


Chart 1. Oligarchy Flow (1800–2010)

Source: World history website

Technology

Technology is the focal point of many fields such as philosophy of science, political science, sociology, mathematics and technical sciences, ethics, religion, history, anthropology, etc. Technology cannot be fully defined, and therefore cannot be controlled or guided. As long as natural order was established in the world, and technique and technical development on the one hand and civilization elements on the other hand did not destroy nature, the question of technology did not make sense. But the development of technology in the industrial and post-industrial era and the changing pattern of production have given rise to a rationality that seeks to achieve certain goals.

Harnessing social realities through tools and techniques led to the conquest of rationality focused on the vehicle-goal chains, and the components of civilization not based on this rationality were vanished. The oligarchs adopted new patterns of production that were based on the structure of socio-economic classes. The unequal distribution of means of production among

social groups created such classes. On the other hand, the authority of cultural traditions was called into question.

The most outward manifestation of technology and the rationality that governs it is to conquer nature for the benefit of man. If we accept the definition of technology as applied science, we must say that science has been organized in the new world according to the pattern of technology, because the more a discipline was applied, the more it served human. In other words, the rationality of technology, that is, the means–end rational was spread to other sciences, even the human sciences, so that philosophy was overrun by science, and no longer determined the legitimate status of science. The naturalistic epistemology foundations determined the legitimate status of science. Scientists interrogate nature as a slave under the master, unaware that the slave will overtake the master someday. Water crisis, all kinds of pollution, extinction of species, global warming, etc. are the calamities rationality has created in short-run for mankind.

Technology, like any other phenomenon, has always unknown characteristics and numerous facets. Technology is not the mere result of our decisions, planning, and policies. The phenomena and events of this world always have consequences that are not under our control. In order to understand technology, it is necessary to study these five themes: tools, using tools, methodology, cognitive and normative framework, and socio-technical systems.

A tool is something that has a causal or a characteristic that, if used in a certain way, a certain purpose is achieved. Technology is an artificial (man-made) tool, not a natural one, and it requires learning. Methodology¹ is the description of the method, that is, what happens in practice to achieve the goal. In methodology, it is difficult to describe what actually happens in practice. In other words, it requires skill. The cognitive-normative framework refers to a behavioral and educable model that regulates social relationships and reactions to which most people adhere, and are punished by law if they disobey. In addition, the cognitive-normative framework guides people on how to respond in different situations. Technology encompasses all the material and spiritual possessions of societies. Technology cannot only be expressed in terms of equipment. Knowledge, skills, culture, value, legal system, and other factors must also be included.

On the other hand, the personality of technology can be examined in three domains: technology as hardware, technology in law, and technology as system. In fact, technology encompasses all of these concepts. Defining technology is defining and combining all these concepts together.

The important point is that technology with all its complex, unknown, and uncontrollable dimensions has become the main engine of economic growth models. It seems that the process of producing goods and services is more involved in the technology cycle than is appropriate to the needs and priorities of consumption. The impact that technology has had on the production process has had negative, unknown, and unpredictable effects on other aspects of human life.

Technological development brings economic growth. However it also enhances social wealth on the one hand by increasing the income levels and wealth and causes certain social problems on the other hand. Technological development makes very important contributions to the economic and social-cultural life. A study conducted in America reveals that people work more than the past; virtues like industriousness and self-discipline are more valued; entrepreneurship increased and people increased their technological capabilities for their new careers. However in spite of these positive developments, the fluctuations and uncertainties created in the commercial life by the technological development caused uncertainties in the job positions of the employees. While technological development eliminated certain jobs and work areas and

¹. For further reading, see *The Philosophy of Technology* translated by Taqavi (2009) and his lectures on the philosophy and Science and technology, Faculty of Philosophy, Sharif University of Tehran.

made a negative impact to employment on the one hand, it created new job opportunities and taught other methods to perform the jobs on the other hand (Hülya Kesici,2015)

Economic growth models

Perhaps the most prominent growth models are the Harrod–Domar model, Solow–Swan model, and the new R&D model. The growth pattern of Harrod–Domar emphasized capital accumulation, and was very useful in its time. With the Industrial Revolution and the emergence of technology, and the transformation in weaponry, European colonization brought wealth to Europe, which provided the resources needed to produce industrial goods. New industries and technologies that needed investment were expanded with European colonial funding, and the role of technology became very crucial.

The Solow–Swan model institutionalized the role of technology-based knowledge in production. The knowledge part of which was applied in human resources (training, management, and resource allocation), and a part was applied in machinery was the main growth factor. The Solow–Swan model that perhaps is the most effective model of economic growth led to communities, which because of natural and geographical conditions, and most importantly for the plunder of resources by the colonists, were frustrated by the improvement of their lives, to get closer to the developed communities. It can be said that the Solow-Swan model best served to increase the well-being of poor countries that has been one of the important and valuable impacts of modern science and technology. Yet, the excitement of production created by technology and other factors has continued in all countries.

New models of economic growth extended the boundary of technology-based knowledge, and made technical creativity and innovation a major driver of economic growth. The innovation economy and the entrepreneurial economy shaped by new ideas, and extended the new technologies as the engine of growth in the process of production of goods and services.

Growth models were developed based on human capital specialized in technology, and the human mind became the technical center of all economic processes. Considering the growth models, the following can be considered:

1. Economic growth is valuable. Communities enhance the growth of knowledge for enhancing technical knowledge. As a result, other aspects of knowledge in the social, ethical, and family sectors do not grow proportionally to the growth of technology knowledge.
2. The process of training and acquiring skills in countries to achieve technology-based science that leads to more productivity is costly. So, people need to spend a lot of time on training. Due to the high rate of technical science growth and the high rate of science depreciation, people have no time to acquire science to grow other aspects of life.
3. Economic growth takes a lot of time. That is, people have to constantly think about growth, and work constantly to align themselves and society with growth indicators.
4. Measuring the economic growth is almost straightforward. In other words, the rate of economic growth and the material and human resources, as well as the time devoted to growth, are quite measurable. But other growth aspects of life, perhaps even more valuable, have been forgotten. The average national production in the world has increased. Productivity and product diversification has raised, and this is a result of the good performance of growth models, in which new technology and science lie. Along with this growth, we destroyed the environment, run out energy resources, and transformed the earth's face. Perhaps this is the biggest shock that economic growth has had. Yet, the paradox is that many people are poor, and suffer from hunger. In industrial civilization, although the human wealth has increased dramatically, equitable distribution has not occurred, and the income gap and consequently the emotional gap

between the society's classes is expanding. The distribution of wealth and income has always been one of the main unresolved issues of the economy (Piketty, 2014).

The rapid change in technology has disengaged and enslaved human beings. This rapid change has led to insecurity, and has greatly weakened family structure, and created new suffering and anxiety in communities. As a result, the economy of happiness was formed, as economic thinkers gradually realized that the human satisfaction and happiness in industrial societies was declining. Economic growth has directly and indirectly caused problems in societies. The paradox led to create research in this direction, some of which are reviewed in the following.

PREVIOUS EXPERIMENTAL STUDIES

Studies on the effect of economic growth on happiness are reviewed in Table 1.

Table 1. Studies on the Relationship between Economic Growth and Happiness

Scholar	Title	Results
Richard Easterlin (2002)	Economy of happiness	Statistical research in selected countries shows that health, ethics, religious beliefs, and democracy are more effective than happiness in economic growth.
Val Dusek (2006)	Philosophy of technology	Economic growth has become involved in the technology cycle rather than bringing prosperity to people, and has become a tool for technology growth.
Luigino and Porta (2007)	Economy of happiness	Econometric models and mathematical optimization models in selected countries show that rising levels of income and GDP in countries have not only had an effect on happiness, but have also, in some cases, reduced the happiness and well-being of communities.
Eisler (2007)	Real wealth of nations	Research by statistics and psychology observations shows that protecting the environment and ethics against economic growth can increase happiness in societies.
Li and Lu (2009)	Happiness and development	They used social variables such as suicide rate to study the relationship between happiness, and development, and for economic variables, they used the logarithm of GDP and capital share. Results of this study showed a positive significant relationship between growth and happiness.
Dutt and Radcliff	Economy, happiness, and politics	Economic growth and happiness have no significant relationship. Economic growth is a necessity for happiness, but economic growth has not followed happiness growth.
Acemoglu and Robinson	The cause of poverty and richness in countries	Statistical and historical research across all the countries of the world in the last 500 years show that politics was the main driver of economic growth and development in countries that increase the happiness and satisfaction of societies.
Sacks et al. (2012)	Costs of economic growth	More economic growth leads to higher growth in life satisfaction.
Palacios-Huerta (2013)	Forecasting the next 100 years from an economic perspective	Happiness has a positive impact on community well-being and environmental protection.
Ricardo (2015)	How does philanthropy guide people?	Ethical crises in the process of economic growth have reduced the happiness of societies. Humans need altruism more than economic growth to be happy.
Waldinger (2015)	What makes our lives happy?	He shows on the continent of America that the main factor in happiness was social communication, and that economic growth had no significant relationship with happiness.

Scholar	Title	Results
Marks (2017)	Happy Planet Index (HPI)	Using the econometric panel data model for 167 countries, he showed that GDP growth had no significant relationship with the happiness level of societies.
WHP (2017)	World Happiness Report (WHR)	Results showed that there was no significant relationship between economic growth and happiness, and emphasized the crisis of happiness in the world.

According to the results of Table 1, there is an ambiguous relationship between economic growth and happiness.

THE AMBIGUITY OF GROWTH AND HAPPINESS

From the statistical data in Chart 2 it can be seen that, despite the high economic growth rate in the world, the rate of happiness is almost constant. Therefore, it can be said that there is a vague relationship between happiness and economic growth. A survey of the average per capita income of countries and their level of happiness in the last century (1972–2016) reveals the ambiguity of the two variables.

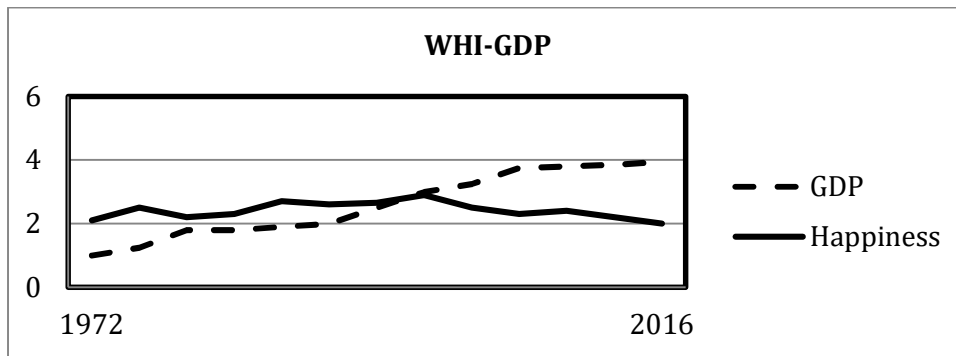


Chart 2. World Average of Per capita National Production and Happiness (1972–2016)

Source: World Happiness Index (WHI) Report (2018)

MODEL INTRODUCTION AND ESTIMATION

In the present study, variables has been selected, so that they have the greatest impact on the happiness level of the communities along with economic growth. These variables are: Emotional Gap (EG) resulting from inequality, Environment (ENV), Democracy (DEM), Domestic Product (GDP), and Happiness (HPI).

● Emotional Gap (EG) resulting from inequality

According to Wilkinson (2010), Atkinson (1970), and Wilkinson and Pickett (2010), economic inequalities, e.g. income inequality, reduce well-being and happiness in societies at a significant level, and create emotional gaps. In addition, surveys and reports by HPI, WHR, and HDR that show the effect of countries’ per capita income inequality on their life expectancy and satisfaction level confirm the effect of inequality on the reduction of happiness. These reports indicate that income inequalities cause emotional gaps in societies, and drastically reduce people’s satisfaction.

Emotional gaps due to unequal distribution of income and wealth in society has have a profound effect on the education level, social skills, and physical health of individuals. Emotional gaps reduce motivation and hope for community life skills and endeavors. In addition, emotional gaps reduce creativity and entrepreneurship in most small firms (and even large firms). On the

other hand, emotional gaps increase the dissatisfaction with life, and enhance crime (crime economy). This index has been studied by the UK Inequality Research Agency and the Development Plan for All Countries.

Statistical data of the average income of 0.10% of the highest level of community income over the average of 0.10% of the lowest level of community income in all countries of the world is represented by the United Nations Development Program as R/P ratio, which have been used in this study.

● Environment (ENV)

Countries contribute to environmental degradation according to the six indices that are part of the World Bank's development data. Countries with one-dimensional programs that prioritize economic growth have the most effect on environmental degradation, reducing the well-being of their nation and the planet as a whole. The environmental degradation index has been measured and explored by the Global Footprint for all countries.

● Democracy (DEM)

The oligarchy and democracy in the societies have a profound effect on happiness and shaping the path of economic growth. The Global Democracy Ranking and Freedom House classify countries in terms of democracy in four groups: full democracy, flawed democracy, hybrid regime (noncentralized state), and authoritarian regime. Accordingly, they consider five principles for measuring and ranking democracy in countries: 1. the electoral process and the plurality of parties, 2. Government structures, 3. Political freedoms, 4. Political culture, 5. Civil liberties.

● Gross Domestic Product (GDP)

Gross Domestic product per capita based on purchasing power parity (PPP\$) across countries is used to show the level of economic activity and economic growth of countries.

● Happiness (HPI)

Following the paradoxes in economic growth and happiness in the world, the Happy Planet Index (HPI) was launched to measure happiness at the planet level. HPI measures sustainable prosperity and happiness, and compares how countries use their natural resources to achieve sustainable levels of prosperity and happiness. The four indices of life expectancy, satisfaction, inequality in life achievements, and environmental degradation are used.

According to Li and Shi (2019), Li (2015), Lin and Lu (2009), Cogoy (2009), Bruni (2009), and Dutt (2010), Equation 1 has been used to assess and determine the effect of variables on happiness. The experimental model of this study is taken from previous studies and modified:

$$HPI_{it} = \beta_1 GDP_{it} + \beta_2 EG_{it} + \beta_3 ENV_{it} + \beta_4 DEM_{it} + \beta_5 HPI_{it-1} + e_{it} + V_i \quad (1)$$

The statistical data collected from 153 countries over the period 2000–2018. HPI_{it} is happiness level, HPI_{it-1} is lagged happiness, EG_{it} is emotional gaps of the societies, ENV_{it} is countries' environmental impact and degradation, DEM_{it} is democracy level, GDP_{it} is domestic product per capita, e_{it} is error term that includes all unobserved economic effects, and V_i is fixed effects in each country. We take the logarithm of the model, and calculate the model's first-order difference. This will remove all variables, e.g. the fixed effects of countries that are fixed over time, and cause estimation problems.

$$\ln(HPI_{it}) = \beta_1 \ln(GDP_{it}) + \beta_2 \ln(EG_{it}) + \beta_3 \ln(ENV_{it}) + \beta_4 \ln(DEM_{it}) + \beta_5 \ln(HPI_{it-1}) + e_{it} + V_i \quad (2)$$

$$\Delta \ln (HPI_{it}) = \beta_1 \Delta \ln (GDP_{it}) + \beta_2 \Delta \ln (EG_{it}) + \beta_3 \Delta \ln (ENV_{it}) + \beta_4 \Delta \ln (DEM_{it}) + \beta_5 \Delta \ln (HPI_{it-1}) + \Delta e_{it} \quad (3)$$

Table 2. Estimating the effects of variables on happiness in short-run

Variables	Coefficients	Z	Prob.
$\Delta \ln (HPI_{it-1})$	0.45	4.69	0.00
$\Delta \ln (GDP_{it})$	0.25	5.99	0.00
$\Delta \ln (EG_{it})$	-1.25	-5.33	0.00
$\Delta \ln (ENV_{it})$	-0.36	-6.59	0.00
$\Delta \ln (DEM_{it})$	-0.52	-1.87	0.07
J-Statics	0.0006	Countries	153

Source: Research findings

As expected, environmental degradation (ENV) caused by new technologies has a negative effect on happiness. The emotional gap (EG) that results from the unequal distribution of income and wealth also has a negative effect on happiness. In addition, oligarchy and flawed democracy (DEM) have a negative effect on happiness. As predicted, economic growth and increasing commodity production (GDP) in societies had a positive effect on happiness. Humans are happy with material and economic opportunities. Provided that this economic growth does not have a negative outcome, and does not damage other aspects of life. Furthermore, due to the coefficient sign of the happiness variable with one lag (HPI_{it-1}), it can be seen that the happiness of the previous period has a positive significant effect on the current happiness.

In Table 3, the relationship between variables in the long-run has been estimated. Long-run coefficients are calculated indirectly through the partial adjustment method ($\theta_i = \frac{\beta_i}{1-\beta_5}$). The estimates still confirm the theoretical foundations. The effect of long-run economic growth on happiness has increased. Long-run environmental degradation has also caused human suffering, and emotional gaps and unhealthy democracy in most long-run oligarchies because of the psychological effects on human life have a greater negative effect on happiness, and still create the greatest level of suffering. The environmental degradation caused by economic growth also has a negative effect on people's happiness. For example, air pollution caused by economic growth causes people to get sick and upset. Among the research variables, the lack of democracy has the negative impact on happiness. In other words, if democracy is less, people are sadder. Also, Income inequality (EG) has a greatest negative effect on happiness. So governments need to do more to reduce income inequality.

Humans are greatly damaged by the cruelty of emotional and oligarchy in the long-run, and happiness in societies drops sharply. By comparing the results of the short- and long-run estimates, it can be seen that both short- and long-run economic growth have a positive significant effect on happiness. The long-run effect of economic growth on happiness is greater than the short-run. In addition, short- and long-run estimates do not confirm Easterlin paradox. That is to say, contrary to Easterlin's view, the economic growth of countries has increased people's happiness in both short- and long-run (although the results of this study are not for the whole world, but only for 153 countries, over the period 2000–2018. While this relationship was ambiguous, according to Chart 2, which explored the relationship between growth and happiness over a longer period for the whole world). Furthermore, according to Nili, Babazadeh Khorasani, and Shadkar (2015), Abounouri and Eskandari (2016), and Jaafari (1981), raising the per capita income will increase the people's satisfaction and happiness. As a result, wealthier countries are happier than other countries. Results of these studies, like that of the present study, do not confirm the Easterlin paradox.

Table 3. Comparing the Variables' Effect on Happiness in the Short- and Long-Run

Variables	Long-run	Z-statistic	Short-run	Z-statistic
$\Delta \ln (GDP_{it})$	0.45	7.43	0.25	5.99
$\Delta \ln (EG_{it})$	-2.27	-6.21	-1.25	-5.33
$\Delta \ln (ENV_{it})$	-0.65	-3.45	-0.36	-6.95
$\Delta \ln (DEM_{it})$	-0.94	-2.57	-0.52	-1.87

Source: Research findings

Sargan test is used in (GMM) Models to determine the appropriateness of the estimate. This test used to determine the Valid Over Identifying Restrictions. Sargan test has a χ^2 distribution. In performing the Sargan test, with respect to J-statistic, the instrumental variable rank, and the number of regressions in the model, the probability value equals 1 that is higher than 0.05, and the J-statistic value equals 0.0006. In terms of autocorrelation, the error term has first-order AR(1) correlation, and does not have the second-order AR(2) correlation. According to the tests, the Moment method is verified, and the Generalized Method of Moment (GMM) has been used properly. The general meaningful of (GMM) Model is confirmed by the Wald test.

The Arellando-Bond serial correlation test was performed and the validity of the GMM model was confirmed (Z=-1.83).

CONCLUSION

In this study, based on social, political, and environmental variables and the data from 153 countries over the period 2000–2018, we found that economic growth had a positive significant effect on happiness (the Easterlin paradox is rejected). Economic growth is very valuable, and no society can achieve happiness without economic growth, but the negative consequences of economic growth, including environmental degradation resulting from one-dimensional thinking and partial selfish rationality in societies, have created a lot of suffering for humans.

The environmental degradation caused by economic growth also has a negative effect on people's happiness. For example, air pollution caused by economic growth causes people to get ill and upset. Among the research variables, the lack of democracy has the negative impact on happiness. In other words, if democracy is less, people are sadder. Also, Income inequality (EG) has a greatest negative effect on happiness.. So governments need to do more to reduce income inequality.

Humans in all societies with all levels of economic growth suffer from emotional gaps, social inequalities, environmental degradation, and oligarchy. The ambiguity of economic growth and happiness, rather than being an economic phenomenon, is because of policies and ethical crises of policymakers. Thus, economic growth along with reducing inequality and poverty, preserving the environment, enhancing democracy, and meeting the basic needs of society increases the effect of economic growth on happiness. The results of this study were the same as the results of Sacks (2012) and Palacios-Huerta (2013) studies, but the results of this study were not the same as the results of Li and Shi (2019), Li (2015) and Mark (2017) studies. Therefore, it can be said that the relationship between happiness and economic growth is ambiguous.

Countries examined in the model are: Argentina, Armenia, Australia, Austria, Bahrain, Bangladesh, Belgium, Bolivia, Brazil, Bulgaria, Bhutan, Canada, Chile, China, Colombia, Costa Rica, Croatia, Cyprus, Czech Republic, Denmark, Ecuador, Egypt, El Salvador, Estonia, Fiji, Finland, France, Qatar, Germany, Ghana, Greece, Guinea, Hong Kong, Hungary, Iceland, India, Indonesia, Iran, Ireland, Palestine, Italy, Jamaica, Japan, Jordan, Kazakhstan, Cambodia, Kenya, South Korea, Kuwait, Kyrgyzstan, Lebanon, Lithuania, Libya, Malawi, Mali, Maldives, Malaysia, Macedonia, Malta, Mauritius, Mexico, Mongolia, Morocco, Namibia, Nepal, Netherlands, New Zealand, Norway, Nigeria, Pakistan, Panama, New Guinea, Paraguay, Senegal, Serbia, Sierra

Leone, Peru, Philippines, Poland, Portugal, Romania, Russia, Rwanda, Oman, Singapore, Slovak Republic, Slovenia, South Africa, Spain, Sri Lanka, Syria, Sweden, Switzerland, Taiwan, Thailand, Togo, Tobago, Tunisia, Turkey, Timor-Leste, Tanzania, Uganda, Ukraine, Eritrea, United Arab Emirates, England, United States, Uruguay, Vietnam, Venezuela, Yemen, Zambia, and Zimbabwe.

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Article history:	Received: October 10, 2020
	Accepted: April 29, 2021