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THE RELATIONSHIP BETWEEN ECONOMIC GROWTH, FOREIGN DIRECT INVESTMENT, AND ENVIRONMENTAL POLLUTION IN VIETNAM

Vo Van Dut

Can Tho University

Email: vvdut@ctu.edu.vn

Pham Le Tuyen

Can Tho University

Email: pltuyen99@gmail.com

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This research aims to investigate the relationship between economic growth (GDP), foreign direct investment (FDI), and environmental pollution (CO₂) by using Environmental Kuznets Curve (EKC) hypothesis and the pollution haven hypothesis for Vietnam. An autoregressive distributed lag (ARDL) model, Pesaran co-integration test, and Granger causality test were applied over time-series data from 1984 to 2016. The results show that the EKC hypothesis is supported in Vietnam in both the short and long term, and FDI positively impacts environmental pollution in the short term. The author also found bidirectional causality between FDI and CO₂ and GDP and CO₂. Relevant policy implications are proposed to reduce environmental pollution in Vietnam and to maintain FDI inflows in the future.

Keywords: Economic Growth, Foreign Direct Investment, Environment

JEL Classifications: F21, O44, Q56

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1. Introduction

Foreign direct investment (FDI) is one of the main engines of economic growth and a channel for transferring advanced technology to host countries (Sapkota and Bastola, 2017; Demena and van Bergeijk, 2019; Demena and Afesorgbor, 2020). Therefore, FDI flows in the world have increased significantly. In recent decades, FDI has moved from developed countries to developing countries (Cole et al., 1997; Cole, 2004; Liu, 2005; Mohiuddin et al., 2016; Roca and Alcántara, 2001, Do and Dinh, 2019). However, several studies have shown that many developing countries promote investment for economic growth while ignoring the

harm to the Environment (Cole et al., 2006; Lan et al., 2012; Solarin et al., 2017; Huynh Van Muoi Mot (2019). Thus, a frequently mentioned issue of FDI is the potential consequences of FDI on the Environment (Cole et al., 2011; Pao and Tsai, 2011; Zhu et al., 2016;).

Vietnam is now a developing country with a relatively high and stable economic growth rate thanks to the reform and attracting FDI for more than 30 years. In 2018, for the first time, Vietnam entered the group of 20 leading FDI attracting countries in the world, and in 2019, disbursed FDI also exceeded 20 billion USD (Foreign Investment Agency, 2020) and GDP growth rate is 7%/year, and GDP per capi-

ta is over 2,700 USD (World Bank, 2020). In recent years, this shows that FDI in Vietnam has also contributed to economic growth. However, Vietnam's rapid growth has left many negative impacts on the environment. Specifically, Vietnam has been one of the fastest-growing countries in global greenhouse gas emissions (World Bank, 2020).

This study aims to estimate the relationship between economic growth, foreign direct investment, and environmental pollution in Vietnam through an autoregressive distributional lag (ARDL) model, Pesaran co-integration, and the Granger causality test. From the empirical finding, appropriate policy implications are proposed to reduce environmental pollution while Vietnam promotes economic growth and strengthens FDI attraction.

2. Theoretical background and hypothesis development

The relationship between economic growth and environmental pollution has existed for a long time. It is analyzed using a popular approach known as the Environmental Kuznets Curve (EKC) hypothesis. Specifically, the Environmental Kuznets Curve hypothesis presents an inverted U-curve relationship between economic growth and environmental pollution. The shape of the curve can be explained as follows:

Economic growth increases environmental pollution when the economies are still in the pre-industrial process. The reason is that undeveloped countries often focus on economic development, and individuals care more about income than environmental quality.

Over time, economic development has transformed countries into industrial economies. At this stage, economic growth also increases environmental pollution, and it also exists a turning point when the economies have developed to a certain level.

After this turning point, economic growth decreases environmental pollution. Because when economies develop to a certain level, their governments will tighten their standards environment to improve pollution as well as individuals prefer improvements in environmentally quality over further consumption. Therefore, the author proposes the following hypothesis:

Hypothesis 1: The relationship between economic growth and environmental pollution in Vietnam has an inverted U-shape.

The relationship between FDI and environmental pollution has two possible effects. The effect is positive when increased FDI leads to increased environmental pollution, known as the Pollution Haven Hypothesis. The relationship of FDI to the environment can also be damaging when increased

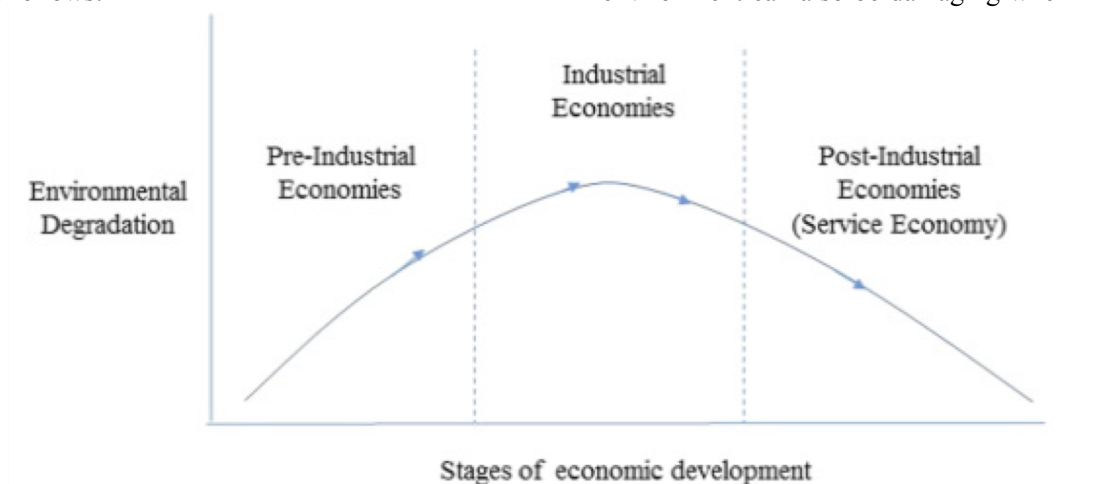


Figure 1: *The Environmental Kuznets Curve (David I. Stern, 2004)*

FDI leads to a decrease in environmental pollution. This is known as the Pollution Halo hypothesis.

Pollution Halo hypothesis

The Pollution Halo hypothesis suggests that FDI helps to improve environmental problems (Antweiler et al., 2001; Kim and Adilov, 2012; Hoffmann et al., 2005; G. Eskeland and Harrison, 2003). The reason is that most FDI comes from developed countries with strict environmental regulations to transfer only external factors to the host country. Specifically, multinational corporations (MNCs) from the Organization for Economic Cooperation and Development (OECD) often use eco-friendly technologies and modern environmental pollution management systems (Zarsky, 1999), so they can use similar modern technologies when conducting FDI. According to the Pollution Halo hypothesis, when companies seek to set up factories or offices abroad, they often look for the cheapest alternative for resources and labor (Levinson and Taylor, 2008). And developing countries with cheap labor and resources tend to have less stringent environmental regulations. As a result, companies that invest directly abroad tend to choose countries with the lowest environmental standards or weakest enforcement. Based on the above arguments, the study put forward the following hypothesis:

Hypothesis 2: The impact of foreign direct investment on environmental pollution in Vietnam is positive.

3. Research Method

3.1. Methods of data collection

The data used in this study is taken from the World Bank (World Bank) and from the United Nations Conference on Trade and Development (UNCTAD) from 1984 to 2016.

Data of FDI and GDP were updated by UNCTAD most recently to 2019, but the World Bank only updated data of CO₂ emissions (dependent variable of the model) until 2016. Therefore, the data in this study were uniformly used from 1984 to 2016.

3.2. Define and measure variables in the model

Dependent variable (CO₂): CO₂ emission index (metric tons per capita) is used as a proxy to measure the level of environmental pollution. CO₂ emissions, largely a by-product of energy production and use, account for the largest share of greenhouse gases associated with global warming. Country-by-country CO₂ emissions are often available for research purposes. Although air pollution (CO₂ emissions) is only one component of environmental pollution, it is a global problem.

Table 1: Describe variables, expectations, and sources

Variable	Symbol	Measurement method	Expectations	Sources
Environmental pollution	co2	CO ₂ emission (metric tons per capita)		WDI
foreign direct investment	lnfdi	Taken log(ln) of foreign direct investment value (%)	+	UNCTAD
GDP per capita in Vietnam	GDP	GDP per capita (1000 current USD)	+	UNCTAD
GDP per capita squared in Vietnam	gdp ²	GDP per capita squared (1000 current USD)	-	UNCTAD

Independent variables:

Foreign Direct Investment (FDI): Foreign Direct Investment refers to the capital entering Vietnam. FDI includes total equity, reinvestment of profits, other long-term capital and short-term capital, and the balance of payments.

GDP per capita (GDP, GDP2): GDP per capita is the gross domestic product divided by the midyear population. GDP is the sum of the value added by all the resident producers in the economy plus any product taxes and minus any subsidies not included in the product's value. GDP per capita was included in the model as squared (GDP2) to test the EKC hypothesis.

3.3. Estimation method

Autoregressive Lag Distributed Model

The Autoregressive distributed lag (ARDL) model developed by Pesaran et al (2001) is used to investigate the relationship between FDI, GDP, and environmental pollution. This model is considered to have many advantages over other co-integration estimation methods. Specifically, it is more reliable in small samples and does not require the variables in the model to have the same lag or to have the same degree of association. It only requires that the variables have an association order less than 2 [I(0) or I(1)].

In this model, the dependent variable Y depends on p lags of itself. Y also depends on the current value of explanatory variable as well as q lags of explanatory variables. Since the model contains p lags of the dependent variable (Y) and q lags of the independent variables, we denote it by ARDL (p,q1,q2,q3).

Paradigm:

In there:

$$ARDL(p, q_1, q_2, q_3): Y_t = \beta_0 + \sum_{i=1}^p \beta_i Y_{t-i} + \sum_{i=0}^{q_1} \delta_i X_{t-i} + \sum_{i=0}^{q_2} \varepsilon_i Z_{t-i} + \sum_{i=0}^{q_3} \mu_i U_{t-i} + v_t$$

p,q1,q2,q3 are the lags of the dependent variable co2, and the independent variables lnfdi, gdp, gdp2 respectively.

Yt: CO2 emissions at time t (co2)

β_0 : intercept coefficient of the model

β_i : estimator of the capital inflow independent variable fdi (lnfdi)

Xt-i: value of the capital inflow independent variable fdi (lnfdi)

Zt-i: value of independent variable gdp per capita (gdp)

Ut-i: value of the independent variable squared gdp per capita (gdp2)

t: residuals

Unit root test:

To test the stationary of data series over time, researchers have proposed many test methods, such as the Dickey-Fuller test (DF), the Augmented Dickey-Fuller (ADF) test, and Phillips-Person (PP) test. In this study, the author uses the ADF test to test the stationary of the time series data.

Since the results of the ADF test are susceptible to the choice of lag length, the information criterion developed by Akaike (Akaike Information Criterion - AIC) is used to select the optimal lag for the regression equation ADF (lag value selected so that AIC is minimal).

Bound of co-integration test:

This study uses the method developed by Pesaran et al. (2001) to test the co-integration relationship between environmental pollution and FDI, income per capita, and income per capita squared.

Test for short term and long term relationship

To ensure the reliability of the research results, some diagnostic tests are also used in this study. These tests include heteroscedasticity, autocorrelation.

Granger causality test

To determine the Granger causality relationship between FDI, GDP, and environmental pollution (CO2 emissions), the author used the Granger causality test proposed by Toda and Yamamoto (1995). This method is implemented based on the VAR model (Vector Autoregressive). It contains the original order variables (instead of the first difference variable like the usual Granger causality test).

4. Results and discussion of results

4.1. Empirical results

Table 2 presents the results of descriptive statistics (mean, standard deviation, maximum and minimum values) of the variables in the model. The average value of CO2 emissions during the study period was more than 0.89 tons/capita. In the early stages of development, CO2 emissions were about 0.26 tons/person. By 2016, CO2 emissions had reached more than 2.57 tons/person. During the study period, the average foreign direct investment in Vietnam is about 27.29 billion USD. Besides, the standard deviation of FDI is relatively high, about 33.24 billion USD. The lowest amount of FDI is only about 0.041 billion USD, and the highest amount of FDI is about 115.39 billion USD. During the study period, the average GDP per capita was 0.689 thousand USD (about 689 USD). The lowest value is about \$0.0788 thousand/person (approximately \$78.8/person), and the highest value is about \$2.19 thousand/person.

The stationary test results presented in table 4 show that three variables (co2, GDP, gdp2) are stationary at their level I(0), and a variable (lnfdi) is stationary at the first difference I(1). Therefore, it can be concluded that all variables satisfy the conditions of the ARDL model. In the study, the author takes the log of the variable FDI because it is calculated by the total amount (billion USD). Hence, the value of the observations is quite significant, and also, there is a large difference between maximum and minimum. Specifically, the most significant value is about 115.4 billion USD, while the smallest value is only about 0.04 billion USD, leading to significant variance. They were taking the log of the FDI variable to shrink the observations with the expectation of making the results more accurate.

The diagnostic test results on autocorrelation and heteroscedasticity presented in table 5 show no autocorrelation and heteroscedasticity in the research model because the p-value is greater than 10% significance.

Table 2: Describe variables

Variable	Unit	Obs	Mean	Std. Dev	Min	Max
co2	Tons/capita	33	0,8955531	0,5835111	0,2631084	2,057566
FDI	Billion USD	33	27,28511	33,24415	0,040791	115,3913
gdp	1000USD/capita	33	0,6890518	0,6791962	0,0787938	2,192174
gdp2	1000USD/ capita	33	0,922121	1,443072	0,0062085	4,805629

The Correlation matrix result

The correlation matrix is used to test for multicollinearity when independent variables interact, leading to unreliable results. According to the results of table 3, there is no multicollinearity between the independent variables (lnfdi and GDP).

Table 3: Correlation matrix

Variable	lnfdi	gdp
lnfdi	1,0000	
gdp	0,7588	1,0000

Test of co-integration and long-run relationship between variables:

The co-integration test results in table 6 show that the calculated F-statistic is 6,976 and lies outside the upper critical value 5.61 at the 1% significance level. As a result, the null hypothesis of no co-integration can be rejected. Therefore, it can be concluded that there is a long-run relationship between CO2 emissions, GDP, and FDI.

Next, the coefficients are considered to be statistically significant or not. The results in table 6 show

Table 4: Unit root test

Variable	Constant	Constant and trend	No constant and no trend
co2	1,977	-1,457	4,853***
lnfdi	-2,167	-0,542	0,581
gdp	5,146***	-0,084	8,759***
gdp2	6,857***	2,454	8,914***
dlndi	-2,835	-3,310	-1,993**

Note (***): significance 1% level; (**): significance 5% level; (*): significance 10 % level

Table 5: Autocorrelation test and heteroscedasticity test

Test	p-value
Autocorrelation (Breusch – Godfrey)	0,8279
Heteroscedasticity (White)	0,4125

that the effect of GDP per capita on CO2 emissions is positive, and the effect of GDP per capita squared on CO2 emissions per capita is negative. These relationships can be interpreted: As GDP per capita increases by 1000 USD, CO2 emissions increase by 1.76 tons/person in the long run. And as GDP per capita squared increases by 1000 USD, in the long run, CO2 emissions decreases by 0.72 tons/person.

The positive relationship between the CO2 emission variable and its one-year lag is understood as follows: When CO2 emissions increase by 1 ton/capita in a given year, CO2 emissions per person in the next year will increase to 0.436 tons.

We have a positive relationship between FDI and CO2 emissions per capita. Specifically, if FDI increases 1% in a specific year, it will increase

Table 6: Test of co-integration

Variable	Coefficient	t value
lnfdi	0,01689	0,68
gdp	1,762592	4,18***
gdp2	-0,7175134	-4,92***
F - statistic	6,976***	
Optimal lag length	3,4,4,4	
Lower critical value [I_0]	4,29	
Upper critical value [I_1]	5.61	

Note (***): significance 1% level; (**): significance 5% level; (*): significance 10 % level

Test the short-run relationship between variables:

The results from table 7 show that the observed variables are all statistically significant, which means there is a short-run relationship between the variables.

immediately 0.00097 tons (about 0.97kg) CO2 emissions/person.

The positive relationship between GDP per capita and CO2 emissions is explained: As GDP per capita increases by 1000 USD, CO2 emissions increase by 1,522 tons/person. The negative relationship between GDP per capita squared and CO2

Table 7: Test the short-run relationship

Variable	Coefficient	P> t
$\Delta co2(-1)$	0,4356637	0,098*
$\Delta lnfdi$	0,0968848	0,034 **
Δgdp	1,522316	0,023 **
$\Delta gdp2$	-0,5486802	- 0,031**
cons	0,1047409	0,090*

Note (***): significance 1% level; (**): significance 5% level; (*): significance 10 % level

emissions show that as GDP per capita squared increases by 1000 USD, CO2 emissions decrease by 0.549 tons/person.

Granger causality test:

a 1% significance level. Therefore, there is unidirectional causality from foreign direct investment to economic growth.

Table 8: Granger causality test

H ₀ hypothesis	p-value
lnfdi does not Granger cause co2	0,073*
co2 does not Granger cause lnfdi	0,000***
gdp does not Granger cause co2	0,001***
co2 does not Granger cause gdp	0,000***
gdp does not Granger cause lnfdi	0,230
lnfdi does not Granger cause gdp	0,000***

Note (***): significance 1% level; (**): significance 5% level; (*): significance 10 % level

Based on the test results shown in table 8, it can be concluded that: Rejecting the null hypothesis about the variable lnfdi does not affect variable co2 at the 10% significance level, and the variable co2 does not affect lnfdi at the 1% significance level, which means that there is a bidirectional causal relationship between FDI and CO2 emissions (environmental pollution).

Rejecting the null hypothesis that the variable GDP does not affect co2 and the variable co2 does not affect GDP at a 1% significance level means accepting the H1 hypothesis at a 1% statistical significance level. Therefore, a bidirectional causal relationship exists between economic growth and environmental pollution.

Accepting the null hypothesis about a variable GDP does not affect lnfdi and rejecting the H0 hypothesis about variable lnfdi not affecting GDP at

4.2. Discussion

In Vietnam, there is a relationship between GDP per capita and GDP per capita squared for CO2 emissions per capita both in the short and long run. This relationship is inverted U-shaped according to the EKC hypothesis. Thus, the results of this study accept the H1 hypothesis, "The relationship between economic growth and environmental pollution (CO2 emissions) in Vietnam has an inverted U-shape". This result is also consistent with Chor Foon Tan and Bee Wah Tan's (2015) study when researching the impact of energy consumption, income, and foreign direct Investment on CO2 emissions in Vietnam. In addition, they also found a bidirectional causality relationship between CO2 emissions and income.

This inverted U-shape can be explained in three stages. When Vietnam's GDP per capita was still

low in the early stage, Vietnamese cared more about income than environmental quality. For example, they use packaging and tools that are difficult to decompose, leading to increased plastic waste. Besides, in this period of innovation and integration, the demand for electric energy is very high, leading to high pollution from thermal power plants. In addition, the country's economic growth is highly dependent on resource exploitation and mining activities. Activities of cutting forests, burning forests for swidden cultivation have not been controlled by current laws which making natural resources difficult to grow. Forests and minerals are decreasing day by day. As a result, CO₂ emissions (environmental pollution) increased during this period.

The next stage is when the economy developed at a certain level, Vietnamese begin to consider the choice between environmental quality and consumption, and the Vietnamese government is also encouraging the protection of the environment by economic tools combined with legal tools such as tax tools, fees in environmental protection management, environmental protection law. There are a number of laws applied during this period such as the Law on Environmental Protection in 1993, the Law on Environmental Protection in 2005, bringing the environment into the Penal Code 2009, etc.

After GDP per capita reaches the turning point, Vietnamese prefer to use eco-friendly products. They are willing to pay more for better environmental quality. Technological advances also make the production process cleaner and resources more efficient. Laws and policies to control air pollution and reduce greenhouse gas emissions in Vietnam are increasingly being improved. Specifically, the Law on Environmental Pollution 2014, Circular No. 212/2015/TT-BTC and Circular No. 128/2016/TT-BTC issued preferential policies to support enterprises that produce and export and import of environmentally friendly products, etc. In addition, many solutions to reduce environmental pollution applied in Vietnam are contributing to reducing

environmental pollution such as: generating electricity from solar energy, wind energy and biomass energy, etc. In particular, in 2019, the pilot of CO₂ trading in Vietnam initially had positive results. Specifically, Vietnam has sold 10.3 million tons of CO₂ and earned 51 million USD. It can be seen that the changes in living and consumption behavior of Vietnamese as well as the efforts of the Vietnamese government in reducing environmental pollution have made the state of environmental solution in this period.

The FDI has a positive effect on CO₂ emissions in the short run. It means that as FDI increases, environmental pollution in Vietnam increases. This result supports the H2 hypothesis: "The impact of foreign direct investment on environmental pollution in Vietnam is positive." This result can be explained as follows:

According to Grossman and Krueger (1991), FDI affects the host country's economy depending on three mechanisms: size effect, structure effect, and technology effect.

Size effect: implies that FDI can increase the size of the economy by increasing production activities because resources are allocated more efficiently, economic growth is higher, but it can make environmental pollution is exacerbated if necessary steps are not taken to address the expansion in the economy.

Structure effect: depending on the country or region, FDI focuses more on industries that have a competitive advantage in there. Thus, leading to a change in the structure of the economy, the structure of industries. As a result, the impact of FDI on the environment also depends on the industries in which FDI participates.

Technology effect: Through FDI, host countries can transfer new technologies that create spillover effects for local companies. However, new technology introduced into production can improve or harm the environment.

In short, the overall effectiveness of a country will depend on which mechanism prevails over a

given period in that country. If the technology effect prevails, FDI will benefit the environment. The host countries can be transferred modern and eco-friendly technologies. Conversely, suppose size and structure effects prevail. In that case, FDI is likely to be harmful to the environment because of the increase in production activities and changes in the structure of the economy in which FDI participates.

In the case of FDI in Vietnam, the technical effect of FDI does not prevail. Specifically, FDI enterprises investing in Vietnam have an average level of production technology, consume a lot of natural resources, and emit large amounts of emissions. By the end of 2020, FDI invested in Vietnam from developed countries with modern science and technology such as Germany, France, Switzerland, USA, Canada, Russia, etc. is still relatively modest but mainly from Asia such as Korea, Japan, Taiwan, Hong Kong, China, etc. Except for partners from Korea and Japan, the rest of the investment countries are basically of average level.

Besides, FDI in Vietnam has advantages of size effect and structure effect. Specifically, FDI in Vietnam is mainly concentrated in the processing, manufacturing, and service industries. These industries use a lot of labor, significant capital but a low level of technology spillover. According to a survey by the Central Institute for Economic Management and Research, by the end of 2016, only 5% of FDI enterprises investing in Vietnam had high technology, 80% had medium technology, the remaining 14% were using low technology. Even technological lines have appeared since the 70s and 80s of the twentieth century. In addition, in 2011 - 2015, FDI concentrated most on textiles, chemicals, electronics, paper, iron, and steel. These are areas with a high potential for environmental pollution.

Another reason that can be mentioned is the institutional capacity of Vietnam. Although Vietnam's environmental regulations are increasingly perfecting and applying the standards of developed countries, the appraisal is only a formality, focusing heavily on the pre-inspection stage. Thus, many projects,

when deployed, seriously violated environmental regulations. According to a study by the Central Institute for Economic Management and Research, about 67% of FDI enterprises are in the low value-added manufacturing industry, and more and more polluting FDI enterprises are expanding their investment in Vietnam. Results of a survey of 150 FDI enterprises in 2016, 45% of enterprises have not applied low-emission production processes, 69% of enterprises said that they would not implement the emission reduction process if it was not a mandatory requirement and 57.7% of enterprises cited high costs as the reason. Even in the period 2011 - 2015, more than 50% of the enterprises subject to inspection and examination were found to have violations of environmental protection. The reason for many violations is that the fine is lower than the investment cost of the waste treatment system. In addition, many businesses have limited capacity and finance so if there is an investment in the environmental protection system, it is also counterproductive and only operates when it is inspected. Therefore, FDI increases environmental pollution in Vietnam.

In addition, this study found bidirectional causality between FDI and CO₂ emissions and bidirectional causality between economic growth and CO₂ emissions in Vietnam. And unidirectional causality from foreign direct investment to economic growth. It can be understood as follows: The rapid development of Vietnam's economy over the past 30 years is due to the increase in FDI inflows into Vietnam. More FDI into Vietnam but lack of selection will lead to an increase in environmental pollution. At the same time, less stringent environmental standards, and regulations in Vietnam increase FDI attraction. The more Vietnam's economy grows, the more environmental pollution is caused by the increased use of fossil energy and outdated technologies. At the same time, with the advantage of abundant fossil resources, this resource is being fully utilized to create a cheap energy source for domestic economic activities that contributes to economic growth.

5. Conclusion and policy implications

The analysis results show that the EKC hypothesis is supported in Vietnam. However, the impact of FDI on environmental pollution is positive. In addition, there is bidirectional causality between FDI and CO2 emissions in Vietnam and bidirectional causality between economic growth and CO2 emissions. And unidirectional causality from foreign direct investment to economic growth.

Policies on attracting and managing FDI in Vietnam need to be carefully considered to balance the two goals of economic growth and environmental protection. First, the Government of Vietnam should continue to improve the policy towards transparency and access to international practices and reform the administrative procedures; continue to adjust and invest in infrastructure, giving priority to water supply and drainage, environmental sanitation, road, and seaport systems; and continue to improve resources including quality of labor and financial institutions. Second, increasing FDI attraction from FDI enterprises with modern technology and efficient use of resources. Second, strengthening the management of FDI activities from project appraisal and approval to the planning and final inspection of projects by the law on investment. ♦

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Summary

Mục tiêu của nghiên cứu là điều tra mối quan hệ giữa tăng trưởng kinh tế, đầu tư trực tiếp nước ngoài và ô nhiễm môi trường ở Việt Nam. Mô hình ARDL, kiểm đồng liên kết và Granger được ứng dụng để kiểm định với dữ liệu chuỗi thời gian từ 1984 đến 2016. Kết quả cho biết rằng, giả thuyết EKC được ủng hộ cả trong ngắn hạn và dài hạn, đầu tư trực tiếp nước ngoài có ảnh hưởng thuận chiều đến ô nhiễm môi trường trong ngắn hạn. Ngoài ra, nghiên cứu còn phát hiện có mối quan hệ nhân quả giữa FDI và CO₂; giữa GDP và CO₂. Các hàm ý chính sách được đề nghị để giảm ô nhiễm môi trường ở Việt Nam để duy trì dòng vốn FDI trong tương lai.

VO VAN DUT

1. Personal Profile:

- Name: **Dut Van Vo**
- Date of birth: 27th November 1979
- Title: Doctor of Philosophy
- Position: Associate Professor

2. Major research directions:

SMEs, strategy management, multinationals, corporate governance, corporate finance.

3. Publications the author has published his works:

- International Business Review,
- Asia Pacific Business Review,
- Journal of Asia Business Studies.
- Asia-Pacific Financial Markets,
- Asian Academy of Management Journal,
- Asian Journal of Business and Accounting,
- Bulletin of Monetary Economics and Banking,
- Journal of Economics and Development,
- Journal of Trade Science,
- Journal of Economics Studies,
- VNU Journal of Economics and Business and among others.