Green Finance and Green Economics in Indonesia

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Abstract :

This study aims to investigate the causal relationship between Green Economics Development, Urban Construction, Green Resource Environment, Green Financial Support on Green Economics using the ARDL model. We find that Indonesia's economic development is increasing leading to green economics. Human mobility has a negative impact on the preservation of nature in the future. The resource environment when processed properly will support green economics. Green financial support has proven to have a positive impact on green economics both in the short and long term.

Keywords : Green Finance, Indonesia, Green Economics, ARDL
JEL Classification Code : C10, N5, Q01,Q13

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Introduction

Economic growth in Indonesia cannot be separated from the support of the health sector to maintain the performance of Indonesian people (Widarni & Bawono, 2021). Indonesia's economic growth grew in the difficult era of the Covid-19 Pandemic, although it was hampered as a result of the pandemic. Seeing that before the pandemic hit Indonesia, economic growth was very good. However, environmental pollution also increased. When the COVID-19 pandemic arrived and hampered economic growth and population mobility, environmental pollution actually decreased and air quality during the time of population mobility restrictions was getting better. There is an inverse relationship between economic growth and environmental sustainability in Indonesia. Economic growth should not be at the expense of environmental sustainability because it makes the environment worse when economic growth continues to grow. Economic growth that threatens the environment needs to be changed to environmentally friendly economic growth or the so-called green economy (Hartono et al,2021).

Indonesia as a country that is one of the significant oxygen suppliers in the world is an important country for the world in terms of the availability of oxygen for mankind. Business sector practices that threaten the environment need to be anticipated so that Indonesia's nature remains sustainable followed by a healthy economy. The concept of green economic growth needs to be developed and supported in an effort to achieve environmentally friendly economic growth and preserve nature. The concept of green economic growth encourages a balance between economic growth and natural sustainability (Stoknes and Rockstrom, 2018).

One of the efforts to preserve the environment is to limit the use of paper. Paper produced from trees needs to be limited in its use to preserve the forest. Information technology is one of the technologies that is growing rapidly and supports the movement to limit the use of paper. Information technology has also penetrated the economic world through financial channels known as fintech which supports paper restrictions. Fintech has changed the conventional business model to a more digital one so that paper can be limited in use and even almost no longer needed in every transaction with fintech so as to reduce the number of trees that are cut (Hung and Luo, 2016).

Fintech is the development of a modern and efficient financial and economic ecosystem (Gomber et al., 2017; Anagnostopoulos, 2018) The development of fintech has given birth to a new technology that is very efficient and continues to grow, namely blockchain technology that allows humans to transact without a centralized control system and remain secure (Thakor, 2020).

Previous research has highlighted green economic growth and fintech such as Guo et al (2017), Zhang et al. (2020), Yang et al., (2021). However, previous research has not comprehensively discussed green economic growth, fintech, and blockchains. Research related to green growth, fintech, and blockchains in Indonesia is still very rare, so this research needs to be done as a complement to previous research considering that Indonesia is an important country in the world's oxygen supply.

Literature Review

High energy consumption, especially fossil energy consumption, encourages rapid economic growth in the short term. But in the long term, it can damage the environment. The practice of encouraging economic growth at the expense of environmental sustainability must be stopped immediately because it will eventually have an impact on future generations. Many studies related to this have been carried out, such as research from Lin and Zhu (2019).

Commercial banks are vital financial institutions in the economy because they act as financial intermediary institutions commercial banks provide a role as a provider of access to real sector finance. The increase in credit in the energy-intensive real sector has an impact on environmental sustainability (Cai et al., 2019).

The development of financial institutions and financial systems in a country indirectly has an impact on the use of energy resources that are less environmentally friendly and ultimately has an impact on environmental sustainability. The growth of the real sector needs to be studied to understand its impact on environmental sustainability so that it can be used as a basis for decision-making in controlling energy use to preserve the environment (Peng, 2020).

Technological developments also play a role in influencing environmental sustainability. The development of increasingly digital technology reduces the use of paper but requires electrical energy which uses a lot of fossil energy which of course has an impact on environmental sustainability (Ulucak, 2020). Regarding energy consumption, renewable and environmentally friendly energy can be maximized so that energy consumption will no longer damage the environment. Technological innovation is an important step in overcoming environmental pollution, of course, environmentally friendly technological innovations (Zhang et al., 2020).

Innovation and technological developments provide opportunities and opportunities for developing countries to increase economic growth while preserving the environment. Technology can increase production efficiency and encourage economic growth so as to reduce environmental damage (Zeng et al., 2014). Technology is one solution to continue to increase economic growth while preserving the environment . Technological advances can encourage a green economy with an economic system that continues to protect the environment while increasing welfare. However, there are other findings that reveal that technology actually increases energy consumption and threatens the sustainability of nature (Zhang et al., 2020). Technological innovation and the financial system have the potential to encourage a green economy system with good processing while preserving nature.

Research Method

To investigate green growth in Indonesia, we use a correlation matrix with the following equation:
S = S(I)* + S(IT) + S(T)*
S(I)* is the subject's static structure matrix. S(IT) is a dynamic difference matrix.S(T)* is the average dynamic change matrix.

Econometric equation :
$Y = \beta_0 + \beta_1 ED_{t1} + \beta_2 UC_{t2} + \beta_3 RE_{t3} + \beta_4 FS_{t4} + e_t$
Y is Green Economics
ED is Green Economics Development
UC is Urban Construction
RE is Green Resource Environtment
FS is Green Financial Support
E is error term

Result and Discussion

Table 1. Estimation Results

Regressor	Dependent Variable Y (Green Economics)		
Long Run Estimation	Coef.	t-Ratio	Prob
ED	0.29	2.12	0.0002
UC	-0.11	-2.02	0.0039
RE	0.13	2.11	0.0006
FS	0.14	1.77	0.0008
Short Run Estimation	Coef.	t-Ratio	Prob
ED	0.13	2.15	0.0011
UC	-0.12	-0.09	0.1025
RE	0.18	2.22	0.0018
FS	0.17	1.66	0.0017

Based on the estimation results in table 1. This shows that in the short term and long term the influence of green economic development has a significant effect on green economics, this shows that in Indonesia economic development is increasingly leading to green economics.
Urban construction in the long term has a significant negative effect, but in the short term, it is not significant, indicating that human mobility has a negative impact on the preservation of nature in the future. A Green Resource environment has a significant positive effect in the long and short term. This shows that the resource environment when processed properly will support green economics

Green Financial support has a significant positive effect both in the long and short term. This shows that green financial support has proven to have a positive impact on green economics both in the short and long term

Conclusion

Indonesia economic development is increasingly leading to green economics. Human mobility has a negative impact on the preservation of nature in the future. The resource environment when processed properly will support green economics. Green financial support has proven to have a positive impact on green economics both in the short and long term

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