

## CHAPTER V

### CONCLUSION AND RECOMMENDATION

#### 5.1 Conclusion

This study aims to see the relationship between oil prices, renewable energy, and monetary policy in Indonesia and other countries that have been listed before. Another research objective is to analyze the relationship that exists between oil prices, renewable energy, and monetary policy in both the short run and long run in Indonesia and other countries. And to compare the relationship between oil prices, renewable energy, and monetary policy in Indonesia and other countries. The data in this study are sourced from IMF Open Data, IEA Dataset, and OPEC Database. By analysing the data from 1996 until 2020 and using the Panel Vector Error Correction Model (PVECM) the result shows that in general Oil Price, Renewable Energy and Monetary Policy have cointegration in the long term, so we can analyze the relationship between them. After finding the model, Oil Price has a negative relationship to interest rate and Renewable Energy has Positive relationship to interest rate, and will be significant with speed of adjustment as 4,8 percent. In the short term, oil price and renewable energy have a significant relationship to interest rate.

In another analysis, there is a division into two groups of countries, namely net oil exporters and net oil importers. In net oil exporting countries, there is a significant negative relationship between oil prices and monetary policy, but there is a negative and insignificant relationship between renewable energy and monetary policy. Meanwhile, net oil importers have a relationship between oil prices and renewable energy which is both negative and not significant to interest rates. The analysis for these two groups is described in terms of long-term relationships. In the short term, the relationship between oil price and interest rate is significant in both net oil exporter and net oil importer countries, while the relationship between renewable energy and interest rate is not significant in both groups of countries.

In the analysis by region, the results were found that in the group of countries in Southeast Asia, Africa and South America there was a negative and significant relationship between oil prices and interest rates in the long term,

whereas in European countries there was a positive but not significant relationship between oil prices and interest rates. rate in the long term. Looking at the relationship between renewable energy and interest rates, the group of countries in Southeast Asia, Africa and South America has a negative and insignificant relationship, while the group of European countries has a positive and insignificant relationship. In the short-term relationship, the Southeast Asian group of countries has a significant relationship between the price of oil and renewable energy and interest rates. Meanwhile, in the African group, only oil prices have a significant relationship with interest rates, whereas in European and South American countries, the relationship between oil prices and renewable energy is not significant with interest rates.

## **5.2 Recommendation**

Based on research results, in general countries throughout the world are trying to find alternative energy to reduce dependence on fossil and non-renewable energy. Supporting increased use of renewable energy can encourage energy diversification and reduce dependence on fossil energy. On the other hand, increasing the use of renewable energy can actually increase interest rates in the future. This is certainly a consideration for the central bank to be more careful in regulating interest rates, besides that the government must also formulate appropriate policies so that apart from encouraging increased use of renewable energy, it also maintains the economy in a stable condition. Based on the agreed Paris agreement, all countries are trying to reduce the production of carbon emissions in order to prevent climate change and global warming by increasing the use of renewable energy. World oil prices also contribute to changes in the country's economy, so every government in the world needs to pay attention to these two important situations. Some recommendations that can be proposed include the following:

1. Improve coordination between the government and the central bank so that they can coordinate monetary and fiscal policies which will later aim to achieve a more effective energy transition.

2. The government needs to provide fiscal incentives for renewable energy, such as implementing carbon emission taxes and renewable energy subsidies to encourage consumption and investment in renewable energy.
3. Encourage the development of renewable energy infrastructure. Research and development are also important so that it can encourage the development of renewable energy.
4. Establishment of clear and stable regulations by the government can provide certainty for investors.
5. Providing international cooperation in the field of renewable energy can accelerate the energy transition and reduce technology costs.

