

## **BAB V**

### **PENUTUP**

#### **5.1. Simpulan**

Penelitian ini bertujuan untuk menemukan hubungan kausalitas antara FDI dan emisi CO<sub>2</sub> di Indonesia. Dengan menggunakan metode *Vector Error Correction Model* (VECM) dan *Granger Causality Test* data Indonesia untuk periode tahun 1987 sampai 2017 diolah. Hasil penelitian menunjukkan, untuk metode VECM dapat disimpulkan bahwa dalam jangka panjang FDI berpengaruh pada emisi CO<sub>2</sub>; sedangkan dalam jangka pendek FDI dapat memengaruhi emisi CO<sub>2</sub> dan pada hubungan sebaliknya emisi CO<sub>2</sub> juga dapat memengaruhi FDI. Selain itu, hasil *Granger Causality Test* menunjukkan terdapat hubungan *bidirectional causality* antar kedua variabel serta *Pollution Haven Hypothesis* terbukti di Indonesia.

#### **5.2. Rekomendasi**

Penulis menyadari masih terdapat kekurangan pada penelitian ini. Untuk itu perlu dipertimbangkan beberapa hal untuk dapat memperbaiki penelitian ini di masa yang akan datang. Penelitian ini hanya menggunakan data *time series* selama 31 tahun, untuk itu perlu dipertimbangkan untuk menambah jumlah data dalam penelitian agar hasil yang diperoleh lebih akurat. Selanjutnya, penggunaan variabel investasi dalam negeri juga perlu dilihat agar pengaruhnya terhadap kualitas lingkungan dapat ditemukan. Selain itu, penggunaan indikator lain yang dapat merepresentasikan kualitas lingkungan seperti *Green House Gases* (GHG) dan sebagainya juga perlu diteliti agar dapat menjadi masukan untuk pemerintah dalam melaksanakan kebijakan perekonomian yang dapat berpengaruh pada kualitas lingkungan.

## DAFTAR PUSTAKA

- Ahmed, K., & Long, W. (2013). An empirical analysis of CO<sub>2</sub> emission in Pakistan using EKC hypothesis . *Journal of International Trade Law and Policy* , 12 (2), 188-200.
- Badan Pusat Statistik. (2020, February 11). *Luas Kegiatan Reboisasi (ha), 2000-2018*. Retrieved April 14, 2020, from Badan Pusat Statistik Web site: <https://www.bps.go.id/dynamictable/2015/09/08/860/luas-kegiatan-reboisasi-ha-2000-2018.html>
- Badan Pusat Statistik. (2020, May 15). *Realisasi Investasi Penanaman Modal Luar Negeri Menurut Sektor Ekonomi*. Retrieved June 16, 2020, from Badan Pusat Statistik Web site: <https://www.bps.go.id/dynamictable/2020/05/06/1807/realisasi-investasi-penanaman-modal-luar-negeri-menurut-sektor-ekonomi.html>
- Balibey, M. (2015). Relationships among CO<sub>2</sub> emissions, economic growth and foreign direct investment and the EKC hypothesis in Turkey. *International Journal of Energy Economics and Policy* , 5 (4), 1042-1049.
- Barri, M. F., Setiawan, A. A., Oktaviani, A. R., Prayoga, A. P., & Ichsan, A. C. (2018). *Deforestasi Tanpa Henti "Potret Deforestasi di Sumatera Utara, Kalimantan Timur dan Maluku Utara"*. Forest Watch Indonesia. Bogor: Forest Watch Indonesia.
- Copeland, B. R. (2009). Pollution Haven hypothesis. *The Prince Encyclopedia of the World Economy* , 924-929.
- De Mello Jr., L. R. (1997). Foreign direct investment in developing countries and growth: a selective survey. *The Journal of Development Studies* , 34 (1), 1-34.
- Dunning, J. H., & Lundan, S. M. (2008). *Multinational Enterprises and the Global Economy* (2nd Edition ed.). Northampton: Edward Elgar.
- Economics Online. (2020). *Agregate Supply*. Retrieved July 1, 2020, from Economics Online Web site: [https://www.economicsonline.co.uk/Managing\\_the\\_economy/Aggregate\\_supply.html](https://www.economicsonline.co.uk/Managing_the_economy/Aggregate_supply.html)
- Grossman, G., & Krueger, A. (1991). Environmental impacts of a North American Free Trade Agreement. *U.S.- Mexico Free Trade Agreement*. Cambridge: MIT Press.
- Gujarati, D. N. (2004). *Basic Econometrics*. New York: McGraw-Hill Inc.
- Hermes, N., & Lensink, R. (2003). Foreign direct investment, financial development, and economic growth. *The Journal of Development Studies* , 40 (1), 142-163.
- International Energy Agency. (2019). *Statistics Data Browser*. Retrieved September 20, 2019, from International Energy Agency: <https://www.iea.org/statistics/>
- Kementerian Lingkungan Hidup dan Kehutanan. (2018, January 29). *Angka Deforestasi Tahun 2016-2017 Menurun*. Retrieved November 24, 2019, from Kementerian Lingkungan Hidup dan Kehutanan Web site: [http://www.menlhk.go.id/site/single\\_post/578](http://www.menlhk.go.id/site/single_post/578)

- Kilicarslan, Z., & Dumrul, Y. (2017). Foreign direct investment and CO2 emissions relationship: the case of Turkey. *Business and Economics Research Journal* , 8 (4), 647-660.
- Kostakis, I., Lolos, S., & Sardianou, E. (2017). Foreign direct investment and environmental degradation: further evidence from Brazil and Singapore. *Journal of Environmental Management and Tourism* , 1 (17), 45-59.
- Krugman, P. (1998). Fire-sale FDI. *Capital Flows and the Emerging Economies: Theory, Evidence, and Controversies* (pp. 43-58). Chicago: University of Chicago Press.
- Kurniati, Y., Prasmuko, A., & Yanfitri. (2007). Determinan FDI (faktor-faktor yang menentukan investasi asing langsung). *Working Paper* .
- Lestari, M. (2019, February 7). *Arif Budimanta: Industri Jadi Penopang Pertumbuhan Ekonomi*. Retrieved February 23, 2020, from Detik Finance Web site: <https://finance.detik.com/berita-ekonomi-bisnis/d-4417168/arif-budimanta-industri-jadi-penopang-pertumbuhan-ekonomi>
- Linh, D., & Lin, S.-M. (2015). Dynamic causal relationships among CO2 emissions, energy consumption, economic growth and FDI in the most populous Asian Countries. *Advances in Management and Applied Economics* , 5 (1), 69-88.
- Nazer, M., & Handra, H. (2016). Analisis konsumsi energi rumah tangga perkotaan di Indonesia: periode tahun 2008 dan 2011. *Jurnal Ekonomi dan Pembangunan Indonesia* , 16 (2), 141-153.
- Rachman, H. H. (2018, January 17). *Arah dan Kebijakan Green Investment*. Retrieved November 17, 2019, from Kemeterian Lingkungan Hidup dan Kehutanan Web site: [http://ditjenppi.menlhk.go.id/reddplus/images/resources/festival\\_iklim\\_2018/mewujudkan\\_investasiPI/PaparanGreenInvestmentWWF.pdf](http://ditjenppi.menlhk.go.id/reddplus/images/resources/festival_iklim_2018/mewujudkan_investasiPI/PaparanGreenInvestmentWWF.pdf)
- Raza, S. S., & Hussain, A. (2016). The nexus of foreign direct investment, economic growth and environment in Pakistan . *The Pakistan Development Review* , 55 (2), 95-111.
- Shaari, M. S., Hussain, E. N., Abdullah, H., & Kamil, S. (2014). Relationship among foreign direct investment, economic growth and CO2 emission: a panel data analysis. *International Journal of Energy Economics and Policy* , 4 (4), 706-715.
- Silajdzic, S., Obradovic, M., & Mehic, E. (2018, April 20). How Effective is Tax Policy in Attracting Foreign Direct Investment in South-East Europe? *Economic and Social Development: Book of Proceedings* , 451-463.
- Solow, S. (1956). A contribution to the theory of economic growth. *Quarterly Journal of Economics* , 70 (1), 65-94.
- Thomas, R. L. (1993). *Introductory Econometrics: Theory and Applications (Longman Economics Series)*. Addison-Wesley Longman Ltd.
- Todaro, M. P., & Smith, S. C. (2014). *Economic development* (12th edition ed.). New York: Trans-Atlantic Publications.

- Tosiani, A. (2015). *Buku Kegiatan Serapan dan Emisi Karbon*. Kementerian Lingkungan Hidup dan Kehutanan. Jakarta: Kementerian Lingkungan Hidup dan Kehutanan Republik Indonesia.
- World Bank. (2017). *CO2 emissions (kt)*. Retrieved September 20, 2019, from World Bank Web site: <https://data.worldbank.org/indicator/EN.ATM.CO2E.KT>
- World bank. (2017). *Foreign Direct Investment, net inflows (BoP, current US\$)*. Retrieved from Worldbank: <https://data.worldbank.org/indicator/BX.KLT.DINV.CD.WD?locations=ID>
- Yildirim, E. (2014). Energy use, CO2 emission and foreign direct investment: Is there any inconsistency between causal relations? . *Frontiers in Energy* , 8 (3), 269-278.
- Zou, X. (2018). An analysis of the effect of carbon emission, GDP and international crude oil prices based on synthesis integration model. *International Journal of Energy Sector Management* , 2 (4), 641-655.
- Zugravu-Soilita, N. (2017). How does foreign direct investment affect pollution? Toward a better understanding of direct and conditional effects. *Environment and Resource Economics* , 66 (2), 293-338.