Analysis of the Effect of Corporate Tax on FDI: Case Study of 6 ASEAN Countries

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Abstract. In order to catch up with the development of developed countries, ASEAN countries, the majority of which are developing countries such as Indonesia, Malaysia, Thailand, the Philippines, Vietnam, Singapore, require substantial funds as a source of financing for the development of a country. foreign Direct Investment (FDI) has an important role for a country's economy in the development sector and economic growth. because FDI is considered much better than others. Because this FDI provides an effect in the form of capital, transfer of knowledge and technology that is truly felt by a country. . The purpose of this study is to determine whether there is an effect of corporate tax, FDI in 6 ASEAN countries using panel data regression with independent variables corporate tax, inflation, unemployment, interest rates and pdb taken from the world bank for the period 2017-2022 and the dependent variable is FDI taken from the word bank for the period 2017-2022. The results of this study indicate that the corporate tax variable has a significant effect on FDI, inflation has no significant effect on FDI, unemployment has a significant effect on FDI, and finally the GDP variable has no significant effect on FDI.

Keywords; FDI; Corporate tax; inflasi; PDB; suku bunga; Pengangguran.

1 Introduction

In the current era of globalization, the economy can affect economic relations between one country and another, from developed countries to developing countries. Including ASEAN countries. Globalization makes dependence between countries and can bring economic cooperation. The amount of environmental damage experienced by developing countries in ASEAN are countries that have low income, and the problem of poverty in a country is an economic development problem that needs to be addressed. (Suripto & Istanti, n.d.). This happens because the growth of industrialization is still in the early stages, which is still focused on economic development and employment so that the country needs more capital. (A'yun & Khasanah, 2022). So Investment is a component that has an important role to face economic globalization.

One form of this investment is foreign investment or what is commonly called Foreign Direct Investment (FDI). Foreign Direct Invesment (FDI) has a very important role for the international economy, especially for countries that are still developing. The existence of direct investment, such as technological renewal, physical capital, expert labor can provide benefits, namely increased employment, increased state revenue, and technology transfer. productivity and output increase so that as a result it can increase the rate and increase national income..(Anwar, 2016). FDI can make economic relations stable, direct, and long-lasting. In terms of the home country, FDI is one of the investments that has a long term in the form of greenfield, mergers & acquisitions and joint ventures so that it can widen market segmentation. While from the host country side, FDI acts as a foreign exchange enhancer for economic development in each country..(Eko et al., 2018).

ASEAN is a geopolitical organization, consisting of developing countries and strongly influenced by the process of economic globalization. Countries that are included in ASEAN countries have very close economic cooperation, including through foreign direct investment (FDI). ASEAN is a region targeted by investors to invest through FDI.. (Fajar Nurbani Aslam & Ari Rudatin, 2023). On the other hand, when the country is chosen as a place for foreign investment, it requires state cash receipts from the tax sector. The term used for taxation for business entities is corporate tax. Corporate tax is used by business entities to be a form of benefit sharing from the profits operating in the country. Corporate Tax is also still often emphasized as an important determining factor in Foreign Investment.

Besides corporate tax, inflation can also affect investment. Inflation is a symptom that shows the level of general price increases that take place continuously. (Lutfi et al., 2014). The impact of an increase in inflation directly makes people's purchasing power decrease, because prices are increasing so that the company's production costs will increase. The occurrence of inflation can lead to economic instability in a country, causing people to choose to own assets rather than cash. (Kurniawan et al., 2022). (Mishkin & Serletis, 2011),)Inflation can affect the level of investment indirectly. In addition to inflation GDP is also an indicator used by investors to evaluate the potential of a country to be a place of investment. because the lack of factors of production results in reduced opportunities for added value (GDP) (Zakiyyah et al., 2023). Furthermore, the unemployment rate, unemployment is not only a problem of unemployment, but can also cause various social and economic challenges. (Sunni et al., n.d.). The existence of foreign investment in the country allows the formation of new goods and capital so that it can absorb new factors of production in the form of forming jobs, which will reduce unemployment in the country.

In the research conducted by (Fathan et al., 2017) corporate tax has no significant effect on FDI. because it can be seen that the instruments that can encourage investment are tax incentives and tax write-offs. (Jan Hunady dan Marta orviska,2014) explains that another important determinant of FDI is economic openness. The higher the economic openness in a country means the weaker the barriers to the market and the more attractive the economy is to foreign investors. So that in this study the GDP variable has a significant effect on FDI (Futuhatul Barorah,dkk, 2019) in his research explains that inflation has a significant negative effect, because when there is an increase in an item, it will have an impact on reducing FDI because the high level of inflation will result in reduced public consumption. There are still few studies that explain how corporate tax affects FDI. Thus, the purpose of this study is to find out how corporate tax affects the variables of inflation, GDP, interest rates and unemployment in the ASEAN region.

2 Research Methods

The method used in this research is to combine cross section and time series data secondarily from the wordbank website. The data collected is secondary data, using data for 6 ASEAN countries with a time period from 2017 to 2022. The research variables are FDI, corporate tax, inflation, unemployment, and GDP with information:

VARIABEL	DESCRIPTION	SYMBOL	SOURCE
FDI	Percentage of FDI value to annual GDP	FDI	WordBank

Corporate tax	Percentage of corporate tax rate to commercial profit of business entity	Corp Tax	WordBank
Inflation	Inflation Presentation	Inf	WordBank
Unemployment	Percentage of labor force not working to total labor force	unemploy	WordBank
Interest Rate	Percentage interest rate value	Interes rate	WordBank
GDP	GDP per capita	pdb	WordBank

The method used in this research is the panel data regression model, in general the equation is formed from the following model:

$$fdi_{it} = \beta_0 + \beta_1 corptax_{it} + \beta_2 pdb_{it} + \beta_3 inf_{it} + \beta_3 unemploy +_{it} e_{it}$$

Describtion
fdi : FDI
corptax : Corporate tax
pdb : GDP per capita
inf : Inflation
unemploy : Unemployment
Interes Rate : Interest Rate
β_0 : Average value modifier
$\beta_{1,2,3,4}$: Slope
i : Country Shows
t : Time series from 2017-2022
e : *error time series* and *cross section*.

3 Result and Discussion

Panel Data Processing Result

TABEL 1.1

VARIABEL	Static Panel Data Model		
	CEM	FEM	REM
Corp Tax	-1.593736 (-4.46)***	1.197005 (1.43)	-1.593736 (-4.46)***
Inf	-1.103183 (-1.18)	-0.358651 (-0.97)	-1.103183 (-1.18)
unemploy	3.066056 (3.21)**	-0.2277591 (-0,16)	3.066056 (3.21)***
Interes rate	-0.1300333 (-0.32)	-0.4423426 (-1.70)	-0.1300333 (-0.32)

PDB	0.2467739 (1.67)	0.119748 (0.69)	0.6773924 (1.67)
c	33.60175 (4.75)***	-17.10991 (-1.10)	33.60175 (4.75)***

Source : Data Processed

Chow Test and Hausman Test Result

TABEL 1.2

source : Data Processed

Diagnostics Tools	
Chow test	0.0000
Hausman test	0.0339

In table 1.2, it is known that the probability value of the chow test is 0.0000, which is smaller than the 5% or 0.05 significant level. So that based on the chow test the best model for this study is the fixed effect model. Next, based on the hausman test, the chi-square probability value is 0.0339, the value is smaller than the 5% or 0.05 significant level. The result of the hausman test researchers chose the random effect model for this study and no more lagrange multiple tests were needed. So based on the result of the chow and hausman tests, the model used in the study is fixed effect model.

Interpretation used Random Effect Model

TABEL 1.3

VARIABEL	COEF.	PROB.	SIGNIFICANT
corptax	-1.593736 (-4.46)***	0.000	Significant
inf	-1.103183 (-1.18)	0.236	Not significant
unemploy	3.066056 (3.21)***	0.001	Significant
interes rate	-0.1300333 (-0.32)	0.750	Not significant
pdb	0.6773924 (1.67)	0.095	Not significant
c	33.60175	0.000	Significant

	(4.75)***
PROB > F = 0.0000	

Individually, at a significant level of 5%, the results of the Random effect model test in table 1.3 can explain that the 4 independent variables are not significant to FDI in the ASEAN Region.

Interpretation used T-Tabel

TABEL 1.4

DF FORMULA	: Number Of Observation
DF	: 32-1
	: 31
T-Tabel	: **2,744042**

1. Corporate tax variable t-count value -4.46, smaller than the t-table value (2.744042). means, the hypothesis (H0) is accepted and rejects Ha so that the corptax variable has no effect but significant on FDI in 6 ASEAN countries.
2. The inflation variable has a t-count value of -1.18, smaller than the t-table value (2.744042). This means that the hypothesis (H0) is accepted and rejects Ha so that the inflation variable has no significant effect on FDI in 6 ASEAN countries.
3. The unemployment variable t-count value of 3.21 is greater than the t-table value (2.744042). This means that the hypothesis (H0) is rejected and Ha is accepted. so that the unemployment variable has a significant effect on FDI in 6 ASEAN countries.
4. The interest rate variable t-count value of -0.32 is smaller than the t-table value (2.744042). This means that the hypothesis (H0) is accepted and rejects Ha so that the interest rate variable has no significant effect on FDI in 6 ASEAN countries.
5. The pdb variable has a t-count of 1.67 which is smaller than the t-table value (2.744042). This means that the hypothesis (H0) is accepted and rejects Ha so that the pdb variable does not have a significant effect on FDI in 6 ASEAN countries.

EXPLANATION

Corporate Tax to FDI

Based on the t-count value of the Corporate tax variable, it is found that the corporate tax variable has no influence but is significant to FDI 6 ASEAN countries. This result contradicts the research conducted by (Fathan et al., 2017) where the corporate tax variable does not have a significant effect on FDI in 35 countries in the Asian region. this is because when the tax rate is high it will cause investors to be less interested in investing in the country. Because when the tax rate is high, the company's profits. Therefore investors will invest in countries that have low tax rates, this can benefit investors.

Inflation to FDI

The results of the t-count obtained show that the inflation variable does not have a significant effect on FDI in 6 ASEAN countries as well as in research. (Davis & Akbar, 2022) stated that inflation has no effect on FDI. High inflation will have an impact on FDI because when inflation occurs, prices will soar, causing investors to be reluctant to invest. Similarly, in research (Barorah et al., 2019) Inflation has a negative effect on FDI in 5 developing countries in the Southeast Asian region because inflation has a negative impact on investment activities in the form of high investment costs. When the inflation rate is low, it will have an impact on low investment costs so that it can increase foreign investment.

Unemployment to FDI

The t-count value of the unemployment variable is greater than the t-table value (3.21 > 2.744042), which means that unemployment has a significant effect on FDI because when the unemployment rate is high, it can reduce people's purchasing power, hamper economic growth, and create uncertainty. This can make foreign investors hesitant to invest due to low potential market demand and economic uncertainty. This is in contrast to the research conducted (Hidayah & Seno Aji, 2022) where the foreign investment variable has a positive influence on unemployment because the presence of investors who invest in the country will bring new industries so as to create jobs. Research conducted (Astrid & Soekapdjo, 2020) foreign investment has a negative but significant effect on unemployment. thus unemployment has no effect on FDI.

Interest Rate to FDI

The results obtained show that the interest rate variable has no significant effect on FDI. this is indicated by the proba value (0.750>0.05) so that when the interest rate increases by 1% it will increase by -0.1300333 This can happen especially high interest rates will have a negative effect on FDI. High interest rates can increase borrowing costs for investors. in accordance with research (David Lembong, 2013) stated that interest rates have no significant effect on FDI. this can be suspected because interest rates do not affect investment activities but there are other factors that can affect investment.

GDP to FDI

The t-count results obtained show that the Pdb variable has no significant effect on FDI. Same thing with research (Zulfa & Millati, n.d.) stated that GDP has a negative effect on FDI. In the research conducted (Kurniawan & A'yun, 2022) This is not in accordance with the assumption because when GDP growth is high, it will be a factor that can encourage investors to invest.(Hendra Permana & Rivani, n.d.) states that GDP has a positive influence on FDI. Because of the increase in GDP, the economy of a country shows improvement, thus encouraging investors to invest.

4 Conclusion

Based on the tests that have been carried out, it can be concluded that of the five independent variables, namely corporate tax, inflation, unemployment, interest rates anddb, there are 2 variables that have a significant effect on FDI including the Corporate Tax variable and unemployment. What the government of each country must do is maintain the stability of the country's economy because investors are attracted to countries with good economic growth so that business opportunities are much better and allow investors to plan their investments for the long term.

References

Anwar, C. J. (2016). FAKTOR-FAKTOR YANG MEMPENGARUHI FOREIGN DIRECT INVESTMENT (FDI) DI KAWASAN ASIA TENGGARA. *Media Trend*, *11*(2), 175. https://doi.org/10.21107/mediatrend.v11i2.1621

Astrid, E., & Soekapdjo, S. (2020). Pengaruh inflasi, jumlah penduduk, ipm, pma, dan pmdn terhadap tingkat pengangguran di indonesia. *FORUM EKONOMI*, *22*(2), 319–325. http://journal.feb.unmul.ac.id/index.php/FORUMEKONOMI

A'yun, I. Q., & Khasanah, U. (2022). The Impact of Economic Growth and Trade Openness on Environmental Degradation: Evidence from A Panel of ASEAN Countries. *Jurnal Ekonomi & Studi Pembangunan*, *23*(1), 81–92. https://doi.org/10.18196/jesp.v23i1.13881

Barorah, F., Malik, N., & Arifin, Z. (2019). ANALISIS INVESTASI ASING LANGSUNG (FDI) DI NEGARA ASEAN TAHUN 2000-2017. In *Jurnal Ilmu Ekonomi (JIE)* (Vol. 3, Issue 3).

David Lembong, J. (2013). ANALISIS PENGARUH PDB, INFLASI, SUKU BUNGA, DAN KRISIS MONETER TERHADAP FDI DI INDONESIA TAHUN 1981-2012. *DIPONEGORO JOURNAL OF ECONOMICS*, *2*(4), 1–10. http://ejournal-s1.undip.ac.id/index.php/jme

Davis, B. kurnia, & Akbar, M. al-fatih rizqi. (2022). DETERMINAN FOREIGN DIRECT INVESMENT DI 6 NEGARA ASEAN DENGAN MENGGUNAKAN DATA PANEL. *Jurnal Ilmiah Ekonomi Bisnis*, *27*(3), 391–402. https://doi.org/10.35760/eb.2022.v27i3.5950

Eko, N., Mukhammad, F., & Mawardi, K. (2018). ANALISIS DETERMINAN FOREIGN DIRECT INVESTMENT DI NEGARA EMERGING MARKET ASIA PERIODE 2011-2015. In *Jurnal Administrasi Bisnis (JAB)|Vol* (Vol. 57, Issue 2).

Fajar Nurbani Aslam, & Ari Rudatin. (2023). Analisis determinan aliran Foreign Direct Investment (FDI) di kawasan ASEAN. *Jurnal Kebijakan Ekonomi Dan Keuangan*, 205–211. https://doi.org/10.20885/jkek.vol1.iss2.art7

Fathan, A., Departemen, T., Ekonomi, I., Ekonomi, F., & Manajemen, D. (2017). *ANALISIS PENGARUH CORPORATE TAX TERHADAP FDI PERFORMANCE: STUDI PADA 35 NEGARA DI KAWASAN ASIA*.

Hendra Permana, S., & Rivani, E. (n.d.). *PENGARUH PRODUK DOMESTIK BRUTO, INFLASI, INFRASTRUKTUR, DAN RISIKO POLITIK TERHADAP INVESTASI LANGSUNG ASING DI INDONESIA (The Impact of Gross Domestic Product, Inflation, Infrastructure, and the Political Risk on Foreign Direct Investment in Indonesia)*. www.weforum.org/,

Hidayah, A., & Seno Aji, T. (2022). *PENGARUH INFLASI DAN INVESTASI TERHADAP TINGKAT PENGANGGURAN DI INDONESIA*. https://ejournal.unesa.ac.id/index.php/independent

Kurniawan, M. L. A., & A'yun, I. Q. (2022). Dynamic Analysis On Export, FDI and Growth in Indonesia: An Autoregressive Distributed Lag (ARDL) Model. *Journal of Economics, Business, & Accountancy Ventura*, *24*(3), 350. https://doi.org/10.14414/jebav.v24i3.2717

Kurniawan, M. L. A., A'yun, I. Q., & Perwithosuci, W. (2022). Money Demand in Indonesia: Does Economic Uncertainty Matter? *Jurnal Ekonomi & Studi Pembangunan*, *23*(2), 231–244. https://doi.org/10.18196/jesp.v23i2.15876

Lutfi, M., Kurniawan, A., & Prawoto, N. (2014). PERTUMBUHAN EKONOMI DAN PENENTUAN TITIK AMBANG BATAS INFLASI DI INDONESIA. In *Jurnal Ekonomi dan Studi Pembangunan* (Vol. 15, Issue 1).

Mishkin, F. S., & Serletis, A. (2011). *The economics of money, banking and financial markets*. Pearson Addison Wesley.

Sunni, M. I., Wanof, M. I., & Wijaya, A. K. (n.d.). Do Household Consumption and Literacy Rate Impact the Fluctuation of the Unemployment in Indonesia? In *Journal of Asset Management and Public Economy (JAMPE)* (Vol. 3, Issue 1). http://journal2.uad.ac.id/index.php/jampe/index

Suripto, & Istanti. (n.d.). *CHARACTERISTICS OF DEMOGRAPHY ECONOMIC FACTORS,AND POVERTY IN GUNUNGKIDUL REGENCY*.

Zakiyyah, N. A. A., Lubis, F. R. A., & Wahyuni, I. (2023). Determinants of Poverty In Indonesia. *EKO-REGIONAL: Jurnal Pembangunan Ekonomi Wilayah*. https://doi.org/10.32424/1.erjpe.2023.18.2.3182

Zulfa, F. N., & Millati, N. (n.d.). Analisis Pengaruh Produk Domestik Bruto (PDB), Nilai Tukar, Dan Suku Bunga Terhadap Foreign Direct Investment (FDI) Di Indonesia Periode Tahun 2015Q1-2022Q4. *Jurnal Ilmiah Wahana Pendidikan*, *2023*(16), 233–249. https://doi.org/10.5281/zenodo.8238096