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STUDY OF INFLUENCE NICKEL VARIABLE ON ECONOMIC CONDITIONS

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Abstract.*The aims of This Research to determine effects of nickel commodiy on Economic Conditions in Indonesia.At this moment can explain overall substantial matters about Research which combine between Nickel as a mineral product from Mining Operation. Research use Methods with Quantitative Methods.The scope about mineral resources research focus on Nickel Commodity.Study about Nickel variable need indepth study regarding relationship between Commodity and Economic Conditions.Substantial matters include Economic Growth,Exchange Rate,and Inflation.Explanatory research system needed with purpose to gain significantly and also adjustment between International Business variables,Research Methods ,and Nickel commodity to support welfare society and to increase economic performance.Final results only two variables, include Economic Growth and Inflation with explanation had been significantly whenever Nickel Production as a independent variable.*

Keywords: *Economic Growth, Exchange Rate, Inflation, Macroeconomics,Nickel Production*

1. INTRODUCTION

Economic conditions refer to the state of macroeconomic variables and trends in a country at a point in time. Such conditions may include GDP growth potential, the unemployment rate, inflation, and fiscal and monetary policy orientations.Some variabel such as economic growth through minimal 5,1 percent until 5,5 %. TheDownstream of Nickel commodities cause economic growth.In this research,issues about popular commodities such as product from mining operations, with typical mention : Nickel.Nickel very interesting ore production result with history in Indo Pacific area in Sulawesi region area , Papua,Fiji, New Zealand,and Australia. Nickel as a ore powder with Ton (1000 kg measurement). Nickel very beneficial to provide extremely technology to replacement gasoline for automotive with good battery electricity vehicle(EV).

Nickel is a mineral primadonna because after comparison with Titanium,Coblat,and other minerals have got capabilities to provide more quantity in supply chain management.in KTT Asean Australia, Nickel with atomic number: 28 is very important to avoid corrosion,have a indicator silver white.Some manufacturing,for example had been producing Battery EV in Karawang Regency,since September 2021 Groundbreaking until new Battery EV Produced Inauguration 2024.

Subject Practice about International Finance,knowing about difference terms about foreign exchange,explaining around currency,relationship between Rupiahs and USDollar.In this matters using exchange rate variable. Economic Growth variable needed,because will be provide a argumentation around to explain about welfare increasing with measurement minimal after determined from minimum score in 5.00 to maximum score 5.5 as planning policy.

Inflation as a independent variable only provide rich mindset for rich people,but if purpose for replacement as a dependent variable,and also use one sample influenced by main commodity.

2. LITERATURE REVIEW

This research aims to analyse the aspects of the demonstration process of Indonesia's regulation on nickel export restriction for its eligibility to be excluded from Article X1:1 GATT.It also analyses the possibility of the use of an environmental approach in the demonstration process and for an alternative measure in its implementation.This research uses very normative research method in conducting its analysis.It analysis Indonesia's nickel export restriction policy based on the European Unions claim regarding quantitative restriction with the international trade governance in the World Trade Organization framework and certain international trade principles.The study also involve certain World Trade Organization jurisprudence to provide comprehensive. Trade principles.Facts Finding, This research finds that Indonesia still needs to give a complete and comprehensive demonstration to prove its eligibility for exclusion from article X1: 1.Demonstrating merely based on an economic approach is inadequate to convince the panel in Indonesia, measurement relating to raw material for justification under article X1:2.This study further finds that both parties generally focus on the economic aspect,which leaves room from the conflict of interest.Other aspects with a lower probability of conflict interest uch as the environmental approach,could be an alternative

For the implementation [1]

Diplomatic relations between Indonesia and China have spanned more than seventy years.Official cooperation between two countries commenced in 1950,during President Soekarno's tenure,and has persisted through the leadership of President Joko Widodo.Over this extensive period,the dynamics of these two relationships have evolved into a notably complex interplay.Despite maintaining friendly relations,the two countries often encounter various challenges that necessitate addressing to fully describe the dynamics of their relationship (Utami,2015). However,these challenges can be effectively addressed through cooperation,evident in the various agreements reached by booth countries Indonesia and China's relations have significantly progressed over the past decade marked by increased cooperation across all aspects through the comprehensive strategic partnership aimed at improving the welfare of the people in both countries.Indonesia's economic relationship with China as a significant trading partner and investment source is increasing with the Indonesian government efforts to accelerate [5].

This study analyses the influence of government expenditure and some other variables that effect the long term economic growth at provincial level in Indonesia.It means uses panel data analysis which consist of some provinces during the period until 2006.Data used has been through statsioneritas tests using augmented Dickey Fuller test (ADF)-Fisher for panel data suggested by Madalla and Wu(1999).The result regarding this research,stationary data on the first level of difference.This study shows that the coefficient of real government spending is significantly positive.It means that agregat government expenditures has an very important role in improving economic growth in Indonesia [4]

The results reveal the complexity of the nickel smelter industry in Indonesia and conclude that the integrated export duty beneficiary policy is the most effective way to boost competitiveness.This policy gives a significant improvement both in the number of smelters

and state revenue compared to the current policy.The Industry's investment competitiveness is enhanced by the six factors of the diamond model with the first three factors being integrated strategy,limited export of excess production and export duty beneficence,while the remaining factors are metal price fluctuation,domestic demand and mineral supply which are related ro mining conditions uncertainty [2]

Both developed and developing countries have contributed to the world economy.The level of welfare of a country can be achieved by dynamic economic growth,which is a condition thet describes an increase in the GDP of the people of a country.GDP is the value of goods and services in a country produced by the production factors belonging to that country's citizens and foreign countries.GDP growth from year to year is affected by various factors with their respective portions.This study aims to determine the factors that affecting GDP in Indonesia and Korea which were analyzed using multiple linier regression analyses.The methods of testing,we used include the coefficient of determination(R2).F statistical test(simultaneous testing) and t statistical test (partial testing). There are three independent variables, Total employment,Inflation,and Export Value Index,and the dependent variable is GDP.And the results show that Unemployment variable and Export Value Index have a partially partially significant affect on GDP and Inflation variable has no partial effect on GDP in Indonesia.Meanwhile in Korea.Unemployment and Inflation have no partial effect on GDP and the Export Value Index has a partially significant effect on GDP [5]

3. RESEARCH METHODS

The research purposes is to verify influencing between nickel production variable to variable in economic conditions.In this research need three variables,include Exchange Rate, Economic Growth and Inflation. First Step,See Table 1.

Table 1. Nickel and Economic Data Collection

No.	INFLATION (%) (/100)	EXCHANGE RATES US$→ IDR	NICKEL PRODUCTION (TON)	ECONOMIC GROWTH (/10)	
1 _2003	868	8876	2499728	52	
02_2003	760	8905	2499728	52	
03_2003	717	8908	2499728	52	
04_2003	762	8675	2499728	52	
05_2003	715	8279	2499728	52	
06_2003	698	8285	2499728	52	
07_2003	627	8505	2499728	52	
08_2003	651	8535	2499728	52	
09_2003	633	8389	2499728	52	
10_2003	648	8495	2499728	52	
11_2003	553	8537	2499728	52	
12_2003	516	8465	2499728	52	
13_2004	482	8441	2105957	53	
14_2004	460	8447	2105957	53	
15_2004	511	8587	2105957	53	
16_2004	592	8661	2105957	53	
17_2004	647	9210	2105957	53	
18_2004	683	9415	2105957	53	

19_2004	720	9168	2105957	53	
20_2004	667	9328	2105957	53	
21_2004	627	9790	2105957	53	
22_2004	622	9090	2105957	53	
23_2004	618	9018	2105957	53	
24_2004	640	9290	2105957	53	
25_2005	732	9165	3790896	54	
26_2005	715	9260	3790896	54	
27_2005	881	9480	3790896	54	
28_2005	812	9570	3790896	54	
29_2005	740	9495	3790896	54	
30_2005	742	9713	3790896	54	
31_2005	784	9819	3790896	54	
32_2005	833	10240	3790896	54	
33_2005	906	10310	3790896	54	
34_2005	1789	10090	3790896	54	
35_2005	1838	10035	3790896	54	
36_2005	1711	9830	3790896	54	
37_2006	1703	9395	3869883	55	
38_2006	1792	9230	3869883	55	
39_2006	1574	9075	3869883	55	
40_2006	1540	8775	3869883	55	
41_2006	1560	9220	3869883	55	
42_2006	1553	9300	3869883	55	
43_2006	1515	9270	3869883	55	
44_2006	1490	9100	3869883	55	

Source: Parts of BPS Statistic Report (2024).

Study about Nickel mineral commodity after mining operation,include research with quantitative method.Some steps after data collecting to process with regression equation to use SPSS Software. Iterative process after Data Collecting involve:

In accordance with the phasing,some calculations :

Relationship between Commodity and Exchange Rate

1. Model Summary for Exchange Rate. NP →ER

Model	R	R Square	Adjusted R Square	Standard.Error of the Estimate
1	.581[a]	.337	.321	448.873

a. Predictors: (Constant), Nickel Production

2. ANOVA[a] for Exchange Rate. NP → ER

Model		Sum of Squares	df	Mean Square	F	Sig
1	Regression	4305596.152	1	4305596.152	21.369	.000[b]
	Residual	8462447.735	42	201486.851		
	Total	12768043.89	43			

a. Dependent Variable : Exchange Rates
b. Predictors: (Constant) : Nickel Production

3. Coefficients[a] for Exchange Rate.NP → ER

	Unstandardized	Coefficients	Standardized Coefficients		
Model	B	Std.Error	Beta	t	Sig
1. (Constant)	7916.516	271.332		29.177	.000
Nickel Production	.000	.000	.581	4.623	.000

Relationship between Commodity and Economic Growth

1. Model Summary for Economic Growth. NP → EG

Model	R	R Square	Adjusted R Square	Standard.Error of the Estimate
1	.815[a]	.664	.656	.634

a.Predictors: (Constant): Nickel Production

2. ANOVA[a] for Economic Growth.NP→EG

Model		Sum of Squares	df	Mean Square	F	Sig
1	Regression	33.308	1	33.308	82.909	.000[b]
	Residual	16.873	42	.402		
	Total	50.182	43			

a. Dependent Variable:Economic Growth
b. Predictors: (Constant),Nickel Production

3. Coefficients[a] for Economic Growth.NP →EG

	Unstandardized	Coefficients	Standardized Coefficients		
Model	B	Std.Error	Beta	t	Sig
1 (Constant)	49.985	.383		130.464	.000
Nickel Production	1.129E-6	.000	.815	9.105	.000

Relationship between Commodity and Inflation

1. Model Summary for Inflation. NP→ I

Model	R	R Square	Adjusted R Square	Standard Error of the Estimate
1	.729[a]	.531	.520	301.363

a. Predictors: (Constant), Nickel Production

2. ANOVA[a] for Inflation.NP → I

Model		Sum of Squares	df	Mean Square	F	Sig

1	Regression	4319872.591	1	4319872.591	47.565	.000[b]
	Residual	3814431.295	42	90819.793		
	Total	8134303.886	43			

a. Dependent Variable : Inflation
b. Predictors: (Constant),Nickel Production

3.Coefficients[a] for Inflation.NP → I

	Unstandardized	Coefficients	Standardized Coefficients		
Model	B	Std.Error	Beta	t	Sig
1 (Constant)	-293.314	182.166		-1.610	.115
Nickel Production	.000	.000	.729	6.897	.000

4. RESULTS AND DISCUSSION

In this research,testing for one sample for economic condition include economic growth,economic exchange rate,and inflation only use t testing,not use F testing,because F testing to use for more one sample.t testing only significant for two variable include Economic Growth variables and Inflation variables. Results calculated in Table 2.

Variabel	t - Count	t - Table	t – Sig
Economic Growth	9.105	6.353	.000
Exchange Rate	4.623	6.353	.000
Inflation	6.897	6.353	.000

Explains about this, Nickel as a results from Mining Operation significant to influence two variable, Economic Growth and Inflation, because market international have got better for mineral geology with rich price and also cause inflation as a price variable.

CONCLUSION

After care about problem research,research gap,and purpose of this research, Solution about two statistics with regression equation need adjustment with substantial matters.Economic Growth,also Inflation have got significant variable as one sample to dependent variable position.recommended for electricity battery automotive to produce continuously.This treatment to give balancing for energy support in comfortable living.

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