

Correlation of Some Indonesian Economic Variables and USA

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ABSTRACT

The purpose of this study is to see how the correlation between monetary variables of Indonesia CPI, BI Rate with monetary variables Country USA that is FFF and Inflation. This study uses a simple correlation analysis and asymptotically correlated table analysis. So it can be explained the result that there is a very low correlation, low and medium among the variables in doing research. And by using the asymptotically correlated table analysis model using lags 0 through lags 12, the resulting values vary in each lag.

Keywords: Correlation, IHK Indonesia, FFF, Inflation USA, BI Rate.

I. INTRODUCTION

The weakening economic growth of the United States and Europe, began to affect Indonesia, with the decline in exports. Although Indonesia's economic growth in 2012 still could reach 6.23% (YoY) and is one of the highest in Asia after China grew by 7.8% (YoY), but lower than the assumption of the 2012 State Budget (APBN) 6.5%. This growth is also lower than in 2011 which is able to reach 6.5%. The GDP value of Indonesia on the basis of 2000 constant prices in 2012 reached IDR 2,618.1 trillion, up by IDR 153.4 trillion compared to 2011 which reached IDR 2,464.7 trillion. Based on its use, the highest growth rate of the sector in 2012 occurs in the components of Gross Fixed Capital Formation (PMTB) or physical investment of 9.81% (YoY). Despite experiencing the highest growth rate, quarterly growth of PMMTB sector decreased significantly. In the fourth quarter of 2012 year on year, the PMTB sector grew by 7.29% compared to the previous quarter which achieved growth of 9.80%. Even in the second quarter of 2012 PMTB grew by 12.47% (YoY). The PMTB has an extensive multiplier effect because it does not only encourage the production side, but also stimulates the consumption side. The PMTB will encourage the opening and expansion of employment, the increase of people's incomes, which will stimulate public consumption.

In addition to PMTB, economic growth in 2012 is also supported by Household Consumption, recorded growth of 5.28% (YoY). Meanwhile, the Government Consumption sector is expected to provide an optimal contribution to the national economic growth of only 1.25% (YoY). Meanwhile, the global economic downturn is impacted by the slowdown in expanding domestic market due to reduced demand from export destination countries. In 2012 Indonesia's exports grew by 2.01% (YoY). Meanwhile, imports grew much higher at 6.65% (YoY). Quarterly, in the fourth quarter of 2012, Indonesia's imports increased rapidly, growing by 6.79% (YoY), while in the preceding quarter it experienced growth of minus 0.17% (YoY). The increase in imports is due to the increase in non-oil and gas imports and oil and gas. In addition, the increase in imports is also influenced by the increasing import of raw materials and capital goods. In 2012, imports of raw materials amounted to IDR 140,127.6 million, or grew 7.02% over the previous year which was recorded at IDR 130,934.3 million. Meanwhile, imports of capital goods in the year 2012 reached IDR 38,154.8 million, growing by 15.24% compared to the year 2011 which was recorded at IDR 33,108.4 million. The higher growth rate of imports compared to the export component caused Indonesia to still suffer from the trade balance deficit.

II. LITERATURE REVIEW

In Roubini (2000) argues that economic phenomena can be influenced by indirect changes in macroeconomic variables. With the occurrence of changes in economic phenomena can also be caused by the movement of exchange rates at domestic and non-domestic levels. Monetary macroeconomic variables such as interest rates will cause changes in exchange rate movements. Furthermore, a positive change in nominal interest at the domestic level will cause the currency to be valued and vice versa. Another case with Kashif (2000), explains that the existence of economic indicators is caused because of the fluctuation of exchange rate shows the result between the rate of inflation and exchange rate has a negative and insignificant correlation between the US dollar and Pakistan rupee. The results for the coefficient between inflation and exchange rates are negative. Meaning, when exchange rate changes show an increase and the rate of inflation leads to a decline, the volatility between these two variables indicates that they are not moving together. For a study with the opinion of Achسانی (2010) to explain the occurrence of inflation rates in these countries is much higher than in other countries, the inflation rate also gives a true sign of relationship with exchange rate, which is a negative relationship. In a study conducted by Levin (1997) changes in the real exchange rate in the domestic currency will fluctuate due to currency depreciation and unchanged exchange rates in domestic prices. In fact, export expansion is caused by depreciation in the home currency.

III. RESEARCH METHOD

Time and Data Research

This study was conducted during the time of May 2017, and using variable data of Bank Indonesia interest rate, Indonesian consumer price index, central bank interest rate and inflation of USA from year 1987-2015

Analisis Data Technique

In this study used correlation data analysis to see the relationship between interest rate of Indonesian bank, interest rate of central bank of USA, Indonesia consumer price index and inflation of USA.

IV. RESULT AND DISCUSSION

Simply put, correlations can be interpreted as relationships. But when developed further, correlation is not only understood to the extent of that understanding. Correlation is one of the analytical techniques in statistics used to find the relationship between two variables that are quantitative. The relationship of these two variables can occur because of a causal relationship or it can also happen by chance alone. Two variables are said to be correlated if changes in one variable are followed by changes in another variable regularly in the same direction (positive correlation) or opposite (negative correlation).

Table 1 : Result correlation BI RATE, FFF USA, IHK IND, INF USA

	BI_RATE	FFF__USA	IHK	INF__USA_
BI_RAT	-	-	-	-
E	1	0.03654485	0.0854469	0.077294590
		156793221	57459759	78933839
FFF_U	0.0365448	-	0.5224893	-
SA_	51567932	1	93919629	0.256176540
	21		7	5312741
IHK	0.0854469	0.52248939	-	-
	57459759	39196297	1	0.281617970
	48			3784114
INF_U	0.0772945	0.25617654	0.2816179	-
SA_	90789338	05312741	70378411	-
	39		4	1

Source : Proceed by eviews 8

The data used in partial correlation usually has an interval or ratio scale. Here are the guidelines to provide interpretation and analysis for the correlation coefficient according to Sugiyono:

0.00 - 0.199 = very low

0.20 - 0.3999 = low

0.40 - 0.5999 = medium

0.60 - 0.799 = strong

0.80 - 1,000 = very strong

If viewed from the results of table 1, there is a very low correlation, low and medium among BI Rate variables, FFF USA, CPI, INF USA. The following table shows the results of asymptotically consistent correlations on lags 0 through lags 12.

Table 2 : Result correlation are asymptotically BI RATE, FFF USA, IHK IND, INF USA

Correlations are asymptotically consistent approximations				
BI_RATE,FF F_USA_(-i)	BI_RATE,FFF _USA_(+i)	i	lag	lead
. .	. .	0	-0.0365	-0.0365
. .	. * .	1	-0.0026	-0.1028
. * .	. ** .	2	-0.0815	-0.1885
. ** .	. **** .	3	-0.2348	-0.3477
. * .	. **** .	4	-0.0839	-0.3745
. .	. *** .	5	-0.0290	-0.3109
. * .	. *** .	6	0.1507	-0.3389
. ** .	. **** .	7	0.2479	-0.3540
. ***				
	. *** .	8	0.2977	-0.2902
. ** .	. *** .	9	0.2303	-0.3275
. ***				
	. *** .	10	0.3147	-0.3290
. ***				
	. ** .	11	0.2872	-0.2021
. ** .	. * .	12	0.1683	-0.0865

Source : Proceed by eviews 8

In statistics, asymptotic theory, or a large sample theory, is a generic framework for assessing the nature of estimators and statistical tests. Within this framework, it is usually assumed that the sample size n grows indefinitely, and the nature of the statistical procedure is evaluated within limits as $n \rightarrow \infty$.

V. CONCLUSIONS

From the study conducted can be explained the results that there is a very low correlation, low and medium among the variables in doing research. And by using the asymptotically correlated table analysis model using lags 0 through lags 12, the resulting values vary in each lag.

VI. REFERENCES

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