

**THE IMPACT OF WORLD CRUDE OIL PRICE
FLUCTUATIONS ON INDONESIA'S MACROECONOMY**

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By:

SAFIRA QISTHI

Student Number: 15313048

**DEPARTMENT OF ECONOMICS
INTERNATIONAL PROGRAM FACULTY OF ECONOMICS
UNIVERSITAS ISLAM INDONESIA
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Name : Safira Qisthi
Student Number : 15313048
Major : Economics (International Program)

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Content Advisor,

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Sahabudin Sidiq, Dr., S.E., M.A.

The Impact of World Crude Oil Price Fluctuations on Indonesia's Macroeconomy

Safira Qisthi

Faculty of Economics of Universitas Islam Indonesia

sqisthi24@gmail.com

ABSTRACT

The objective of the study is to analyze the impact of world crude oil price fluctuation on Indonesia's macroeconomy. There were 3 variables on Indonesia's macroeconomy such as Gross Domestic Product (GDP), Balance of Payment (BOP), and inflation. The sample data was the quarter data from quarter 1 of 2005 until quarter 4 of 2015, the total were 44 samples. The data used in this research was secondary data from central bureau of statistics (BPS) and Bank Indonesia (BI). This research used Vector Auto Regression (VAR) analysis. The result of the analysis showed that the oil price had an impact on Gross Domestic Product (GDP). Meanwhile, oil price did not have an impact on Balance of Payment (BOP) and inflation.

Keywords: crude oil price fluctuation, Gross Domestic Product, Balance of Payment, Inflation

Dampak Fluktuasi Harga Minyak Dunia terhadap Makrekonomi Indonesia

Safira Qisthi

Fakultas Ekonomi Universitas Islam Indonesia

sqisthi24@gmail.com

ABSTRAK

Tujuan dari penelitian ini adalah untuk menganalisa dampak fluktuasi harga minyak mentah dunia terhadap makroekonomi Indonesia. Terdapat 3 variabel yang tergolong dalam makroekonomi Indonesia seperti Produk Domestik Bruto (PDB), Neraca Pembayaran Indonesia (NPI), dan inflasi. Sampel data adalah data triwulan dari triwulan 1 tahun 2005 sampai dengan triwulan 4 tahun 2015, jumlah sampel adalah 44 sampel. Data yang digunakan di dalam penelitian ini adalah data sekunder dari Badan Pusat Statistik (BPS) dan Bank Indonesia (BI). Penelitian ini menggunakan metode Vector Auto Regression (VAR). Hasil dari analisa menunjukkan bahwa harga minyak mempunyai dampak terhadap Produk Domestik Bruto (PDB). Sedangkan, harga minyak tidak memiliki dampak terhadap Neraca Pembayaran Indonesia (NPI) dan inflasi.

Kata Kunci: fluktuasi harga minyak mentah dunia, Produk Domestik Bruto, Neraca Pembayaran Indonesia, Inflasi

INTRODUCTION

Nowadays, there are three important things in the economy of the world. Those are the decreasing of oil prices, the getting stronger of dollar, and the revolution by United States. The average price of world crude oil in the previous year tends to be fluctuated. The decreasing of the world crude oil price was caused by some factors, one of them is the revolution of shale gas in United States. Shale gas is a natural gas that was obtained from a flake of shale.

The production of shale gas causes the decreasing of another energy sources prices because of the expansion and the stock of shale gas is quite abundant. Shale gas was considered decreasing production cost. The production of shale is also able to increase energy resilience and reducing the dependency on expensive fossil energy such as oil and coal.

Another study was done by Sheikhs (2014) about a drastic plunging oil price phenomenon in the end of 2014 and early 2015. The OPEC (Sheikhs) kept the oil production in regular volume even the world was flooded by oil from shale oil technology. By keeping the volume, they intended to pull down the oil price; thus, it will halt shale oil production due to its expensive production cost. Regardless of the OPEC aims to keep the price stable, the OPEC acted contrary on the increasing oil supply due to the shale oil. This action successfully cancelled at least 150 billion of higher-cost-oil investment in 2015 and more cuts to come next year which could have an effect on oil supply in the future.

From economic literature, there are few mechanisms that explains how the world crude oil price can hamper the economy. In the supply side shock, the role of world crude oil price is as an input factor for the production. The decreasing of oil supply will hamper the productivity and turn to lessen the real wage growth. If the wage plunging goes downward, the economy will be decreasing and causes the increasing of unemployment and generates further reduction in the economy.

In the demand side, the increasing of world crude oil price will shift the purchasing power from the oil importing countries to the oil exporting countries. This phenomenon will increase the demand of consumer in the oil exporting countries and vice versa. Meanwhile, as a net, the effect will be decreased in consumer demand and it causes the increasing of world saving. More savings tend to make the interest rate decrease and push to higher investment and it leads to the constant GDP.

Another factor that affect the decreasing of world crude oil price is the increasing of production by a country that joined in OPEC (Organization of the Petroleum Exporting Countries). When the production of crude oil increasing but the demand does not change or constant, there will be an excess of crude oil production that makes the price decrease.

THE IMPACT OF WORLD CRUDE OIL PRICE FLUCTUATIONS ON GROSS DOMESTIC PRODUCT (GDP)

Based on the analysis done above, the world crude oil price had positive impact on Gross Domestic Product (GDP). It means that the increasing of world crude oil price had impact on the GDP as well at those months and this process happened in 3 months. The relatively rapid shock transmission of oil prices on economic growth was certainly inseparable from the influence of the availability (supply) of oil as a raw material (input) for domestic production processes.

The reason is because Indonesia, the subsidy role in oil and gas sector is still important in GDP forming even though the proportion is small. Even though the subsidy in oil and gas sector tend to decrease, but the shock impact of crude oil price will permanently have an impact on Indonesia's GDP.

Indonesia become an importer country in world crude oil sector since 2004. Even though Indonesia is an importer country in world crude oil sector, Indonesia is also one of the producers and the refined oil will be exported abroad; thus, Indonesia will get profit by the increasing of crude oil price that will be followed with the increasing selling price of Indonesian Crude Price (ICP).

THE IMPACT OF WORLD CRUDE OIL PRICE FLUCTUATIONS ON BALANCE OF PAYMENT (BOP)

Based on the analysis above, world oil prices had no effect on Balance of Payment (BOP). The high and low fluctuations in world oil prices did not affect the balance of payments in Indonesia. This was possible because the rising oil prices could depreciate the rupiah exchange rate, which would result in an improvement in Indonesia's balance of payments position even if only on a small scale.

THE IMPACT OF WORLD CRUDE OIL PRICE FLUCTUATIONS ON INFLATION

Based on the analysis above, world crude oil price did not have big impact on inflation, in another word, world crude oil price had small impact on inflation. It was caused by the probability of fuel price that increased by the seller, for example Pertamina, Shell, and etc.

Besides that, Indonesia as an importer country of oil should obtain oil with the cheaper price. The government needed to see the price of fuel (*Bahan Bakar Minyak*) in a country. The decreasing of fuel price would have an impact on the decreasing of manufacture cost production. With the low-cost production, the product price would decrease. Thus, the manufacture export

and non-migas would be more competitive. Moreover, the transportation cost and energy cost would be cheaper and the result the inflation would be lower.

RESEARCH METHOD

This research aimed to analyze the impact of world crude oil price fluctuation in international market on Indonesia's economy quarterly in 2005-2015. By using quantitative research with time series data and VAR model, this research analyzed "The Impact of World Crude Oil Price Fluctuation on Indonesia's Macroeconomy (Balance of Payment (BOP), Gross Domestic Product (GDP), and Inflation)".

POPULATION AND SAMPLE

The sample data was the quarter data from quarter 1 of 2005 until quarter 4 of 2015, the total were 44 samples. The data used in this research was secondary data from central bureau of statistics (BPS) and Bank Indonesia (BI).

DATA ANALYSIS TECHNIQUE

This research used Vector Auto Regression (VAR) analysis. The result of the analysis showed that the oil price had an impact on Gross Domestic Product (GDP). Meanwhile, oil price did not have an impact on Balance of Payment (BOP) and inflation.

DATA ANALYSIS AND DISCUSSION

CONCLUSION

From the analysis made by the researcher, it can be assumed that world crude oil price had positive relationship on Gross Domestic Product (GDP). It means that the increasing of world crude oil price would have impact on the GDP as well at those months and this process happened in 3 months. Moreover, the world crude oil price had no relationship on Balance of Payment (BOP). The high and low fluctuations in world oil prices did not affect the balance of payments in Indonesia. This was possible because the rising of oil prices could depreciate the rupiah exchange rate, which would result in an improvement in Indonesia's balance of payments position even if only on a small scale. Meanwhile, the world crude oil price did not have big relationship on inflation, in another word, world crude oil price had small relationship on inflation. It was caused by the probability of fuel price in Indonesia was increased by the seller, for example Pertamina, Shell, and etc.

RECOMMENDATION

The recommendation for future research is, it can be conducted by not only focusing on the sector of oil price fluctuation, but also in another sector. Also, the researcher hope that will be many researches discuss similar to this topic. Especially in Balance of Payment (BOP) because there are only few researchers that discussed about the impact of oil price to BOP.

Moreover, another recommendation from the researches is, the government can find a way to control inflation in Indonesia. Because, when inflation happened, the price of goods and services will be increase, one of them is public transportation. Meanwhile, many people in Indonesia still using public transportation than private transportation. We know that public transportation was made to avoid traffic and beside that, people still using public transportation is because of it is cheap price.

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