

The Difference in Consumption Elasticity on Imports between Indonesia and America

Dewi Mahrani Rangkuty
Economics Department
Universitas Pembangunan Panca Budi
Medan, Indonesia

Alfian Zulmi
Economics Department
Universitas Andalas
Padang, Indonesia

Abstract:- This article aims to discuss the difference in elasticity to imports and the aggregate consumption between the two countries namely Indonesia and America with time series 1988-2017. Indonesia as a developing country shows that changes in the inflation rate led to a single percent change in Indonesian imports. GDP value changes cause a percent change in Indonesia's aggregate consumption. Whereas in America, foreign exchange reserves, the rate of inflation and consumption is elastic towards American imports. The GDP value, debt interest, and imports are elastic against American aggregate consumption during 1988-2017. This distinction indicates that in American developed countries more elasticity between economic variables than Indonesia is still developing countries. Recommended to the Government of Indonesia through the Ministry of Trade and Bank Indonesia as a policy determinant to maintain the stability of the rupiah exchange rate in the international market so that the productivity of real sector output can support Acceleration of development and domestic economy because Indonesia is included in one of the emerging market countries for now that seeks to maintain the welfare of the community.

Keywords:- Import; Consumption; Elasticity.

I. INTRODUCTION

In support of the movement of economic growth in the country, one of the most important components is the country's aggregate consumption. Aggregate consumption is the total overall consumption of regional people in a country. It relates to the real sector that accelerates the movement of regional economies. Real-sector Output impacts productivity enhancement, affecting market demand and bidding. Aggregate demands and offerings that then drive the economic activity of a country.

The consumption of liquid aggregate is one of the main components of GDP, which contributes specifically to the long term standard of living in the conjugation [1]. Indonesia as a developing country, the consumption of one of the economic variables that became an indicator of the increase in productivity of real output domestically. The real magnitude of output affects economic standards both in a region to the country. As a developed country, the aggregate consumption rate also affects the GDP value of a certain period in the country. This reflects that in the economic

growth of every country, aggregate consumption becomes important in the short and long term.

International trade in exports and imports is also an economic indicator that can accelerate the increase in the country's economic growth. Imports are done when the goods and services that will be produced emit a much larger production cost than buying them from other countries. As a country that has international relations in the world market, Indonesia and America import to meet the needs of the people within their country. Imports do not forever give a negative impact on the growth of economies in a country. Imports larger than exports will result in a current account deficit. But when imports are utilized on the effectiveness of production resulting in high output will certainly bring a profit for the country.

Import and consumption is an inseparable economic variable in support of daily economic activity by communities in every country [2]. The aggregate consumption is one component of economic growth while imports are also economic variables that contribute through international trade transactions in advancing the economy in a country. So is the case in Indonesia and America as discussed in this article. The aggregate consumption and import support the growth of economies in both countries.

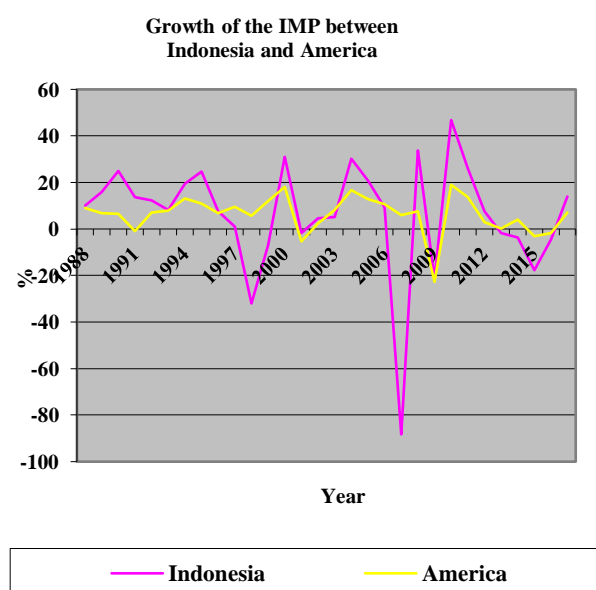


Fig 1:- Growth of the IMP between Indonesia and America
Source: World Bank (1988-2017)

For Indonesia, the highest import growth rate is in the year 2010 which is 46.82 percent while in 2007 is the lowest for a negative of 88.25 percent. For America, the highest import growth rate was in 2010 which amounted to 19.01 percent while in 2009 it was the lowest of a negative of 22.68 percent. The growth rate of both countries indicates a much different range. Indonesia showed a considerable fluctuating growth rate whereas America showed a relatively stable growth rate of 1988-2017.

Indonesia tends to import supporting materials in the domestic production process. Export performance is still lacking in support by suppressing imports for accelerated domestic economic growth. In addition, in meeting the aggregate needs of Indonesian consumption also still use products supported from abroad. Unlike America, the trend of imports occurs when it fulfills the consumption needs of overly expensive economic goods and services when manufactured domestically and or in no way found in the country based on geographic.

In increasing the economic growth in a country, aggregate consumption can support the acceleration of development through the expenditure of consumption of people in the country [3]. Consumption expenditure becomes a significant economic variable on economic growth in every region or country. High consumption expenditure reflects high economic activity in the market, especially in the real market. Real market productivity enhances the output that can support the country's economy.

trend of economic growth in the short-term as well as long-term.

One of the measuring instruments for aggregate consumption is through the consumer price index. Consumption expenditure, also known as shopping expenditure, affects the output productivity of a country. Increasing job opportunities, creating income distribution and the welfare of society through human resource productivity so that economic equality is increasing. The classical economic theory states that economic growth is influenced by the magnitude of the output generated over a period of time.

II. METHOD AND DISCUSSION

This article discusses the differences in elasticity to the major economic variables of Imports (IMP) and Consumption (CONS). Where other variables are described include Foreign Exchange Reserves (FER), Inflation (INF), Gross Domestic Product (GDP) and Debt Interest (DI) with time-series 1988-2017. Elasticity is a measure of how many buyers or sellers respond to changes in market conditions. This measure leads to supply and demand analysis with better precision. Elasticity is a percentage change of something due to a 1 percent change in factor changes of something else.

In international trade transactions, a country requires a foreign currency exchange, called foreign exchange, as a means of exchange of payment in the international market [4]. Also known as foreign exchange reserves in the form of gold reserves, foreign currency as the state capital in maintaining the stability of currency exchange rates in the international market. The high foreign exchange reserves reflect the surplus on the current account and vice versa.

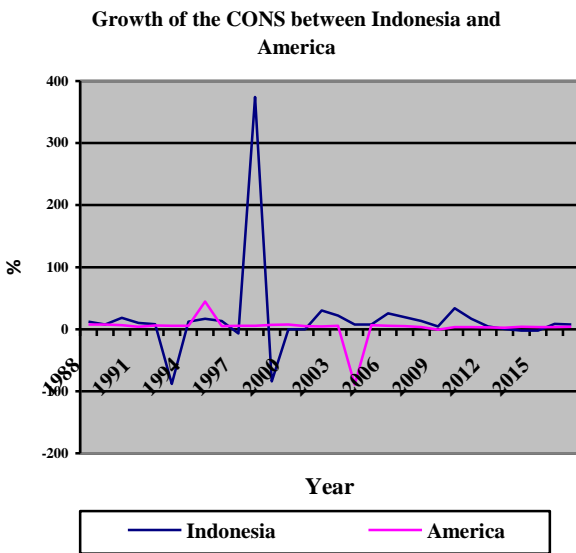


Fig 2:- Growth of the CONS between Indonesia and America
Source: World Bank (1988-2017)

For Indonesia, the highest consumption growth rate was in 1998 which amounted to 374.35 percent while in 1993 it was the lowest of a negative of 88.48 percent. For America, the highest consumption growth rate was in 1988 which amounted to 7.72 percent while in 2004 it was the lowest of a negative of 89.36 percent. As a country that grows in the economy, aggregate consumption affects the

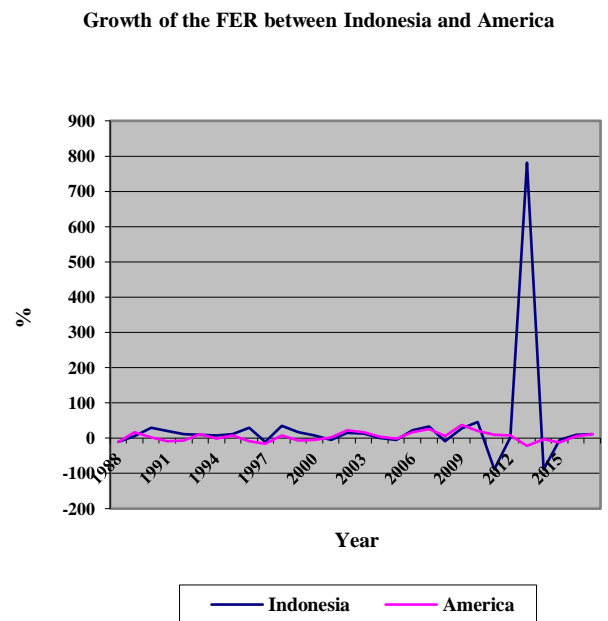


Fig 3:- Growth of the FER between Indonesia and America
Source: World Bank (1988-2017)

Based on the chart above, the growth rate data of Indonesian foreign exchange reserves fluctuated during 1988-2017. The highest growth rate was in 2013 which amounted to 781.11 percent while the lowest was in the year 2014 which was a negative of 88.74 percent. The growth rate of American foreign exchange reserves tends to exhibit a steady trend during 1988-2017. The highest growth rate was in 2009 which amounted to 37.43 percent while the lowest was in the year 2013 which was a negative of 21.90 percent. The growth rate of the two countries' foreign exchange reserves shows quite a different trend in the management where Indonesia is still a developing country while the United States as a developed country.

Inflation is the event of increased price of goods and services as a whole and occurs continuously within a certain period of time. Inflation is an economic event that is not rare occurring in every country. Inflation is an economic variable that can also affect the country's economy. Not completely inflationary impacts the economy, but inflation is also needed in controlling output productivity in a useful country that supports accelerating development growth.

Growth of the INF between Indonesia and America

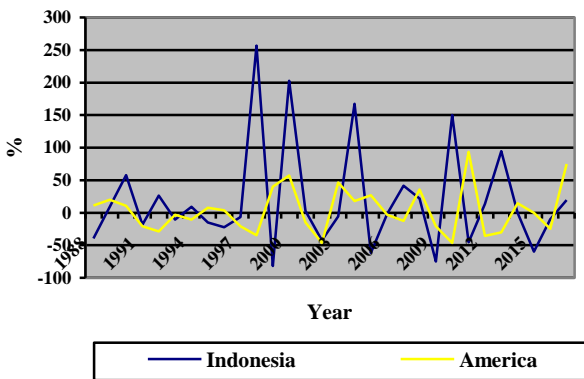


Fig 4:- Growth of the INF between Indonesia and America
Source: World Bank (1988-2017)

The Trend in Indonesia's inflation growth rate of 1988-2017 is in 1998 which is 256.90 percent in the monetary crisis, indicating hyperinflation, while the lowest is in 1999 which is a negative of 81.64 percent. For America, the highest trend in inflation growth is in 2011 which is 93.75 percent while the lowest is in the year 2010 which is a negative of 46.67 percent. The Trend in Indonesia's inflation growth rate is more highly fluctuating than America can see on the chart above.

The country's high economic growth figures reflect the welfare of the people in the country. Indonesia and the Americas are two different countries, Indonesia as a developing country still shows the economic growth rate of less than 6 percent per year, whereas America shows the economic growth rate of more than 6 percent per year. GDP is an indicator of economic growth in every country. GDP is the benchmark of the country's success in accelerating country development.

The graph shows the trend in GDP growth rate between Indonesia and America. The fluctuating trend in GDP growth rate in Indonesia compared to the Americas. Indonesia's highest GDP growth rate is in 2000 which is 600 percent while the lowest is in the year 1999 which is a negative of 94.66 percent coinciding one year after the economic crisis in Indonesia. For America, the highest GDP growth rate is in 1992 which is 250 percent and the lowest is in the year 1991 which is a negative of 47.37 percent.

Growth of the GDP between Indonesia and America

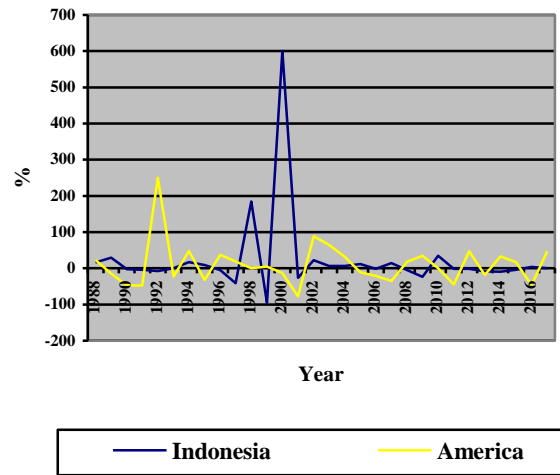


Fig 5:- Growth of the GDP between Indonesia and America
Source: World Bank (1988-2017)

In support of the development of the country needed internal and external resources. Internal resources are already the potential of the country while external resources are resources originating from outside the country such as foreign loans, grants and so on. The focus on foreign lending or debt is closely related to interest expense in return for the loan service. Every country in the international market that works together in an international organization uses external resources to support development acceleration.

Growth of the DI between Indonesia and America

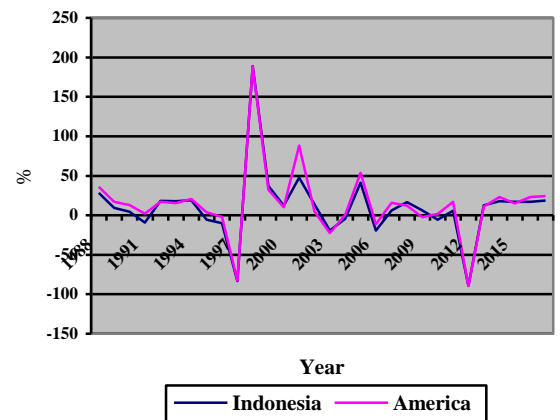


Fig 6:- Growth of the DI between Indonesia and America
Source: World Bank (1988-2017)

The growth rate of debt interest between Indonesia and America showed a fluctuating trend during 1988-2017. The highest rate of Indonesia's debt interest growth was in 1998 which amounted to 189.01 percent when the monetary crisis occurred while the lowest was in the year 2012 which was a negative of 89.22 percent. For the rate of the highest American debt interest growth was in 2001 which amounted to 40.12 percent while the lowest was in the year 2002 which was a negative of 9.06 percent. Debt interest impacts the sustainability of foreign exchange reserves in every country because it needs to be pressed to maintain the country's economic stability.

The result of the IMP elasticity calculation of other variables on the difference between the two Indonesian and American countries can be seen as follows.

Indonesia		
FER	0.225 < 1	Inelastic
INF	8.387 > 1	Elastic
CONS	0.402 < 1	Inelastic
America		
FER	1.761 > 1	Elastic
INF	1.107 > 1	Elastic
CONS	1.025 > 1	Elastic

Table 1:- The Elasticity of IMP to
Source: Data is processed

The country's foreign exchange reserves become the primary in supporting export and import activities. The accumulation of foreign exchange reserves can help the current account problem that the deficit in each developing country [5]. For the country of Indonesia, the foreign exchange reserves of imports are inelastic. It means that the percentage of changes in the number of Indonesian foreign exchange reserves does not cause a one percent change in Indonesian imports during 1988-2017. As for the American state, foreign exchange reserves of imports are elastic. It means that the percentage change in the number of American foreign exchange reserves resulted in a single percent change in American imports during 1988-2017. Indonesia and America indicate the elasticity of the economic variables of foreign exchange reserves of imports. The theory states that the change in the number of foreign exchange reserves of a country will affect the current account of import-export activities in the country.

The incidence of inflation affects price movements in the market, which impacts demand and bidding on economic goods. Inflation in a country also affects output productivity [6]. For the Indonesian state, inflation on imports is elastic. It means that the percentage of changes in Indonesia's inflation rate led to a one percent change in Indonesian imports during 1988-2017. And for the American state, the inflation rate of imports is elastic. It means that the percentage of changes in the American inflation rate led to a single percent change in American imports during 1988-2017. Indonesia and America demonstrate the elasticity of economic variables of inflation rates on imports. The theory states that changes in the

inflation rate of a country will affect the current account of export-import activities in the country.

The aggregate consumption in a country consists of the consumption of goods and services in the country and abroad, also known as imports. Imports of goods and services affect the economic growth of a country. Thus the aggregate consumption affects the import activities of the country [7]. For the Indonesian State, the aggregate consumption of imports is inelastic. It means that the percentage of changes in Indonesian aggregate consumption did not result in a single percent change in Indonesian imports from 1988-2017. And for the American state, the aggregate consumption of imports is elastic. It means that the percentage of changes in American aggregate consumption led to a one percent change in American imports over the years 1988-2017. Indonesia and America show the difference in the elasticity of economic variables of aggregate consumption to imports. The theory states that the change in the aggregate consumption of a country that is included in the consumption of economic goods and services from abroad will affect the current account of export-import activities in the country.

The result of the CONS elasticity calculation of other variables on the difference between the two Indonesian and American countries can be seen as follows.

Indonesia		
GDP	0.584 < 1	Elastic
DI	0.426 > 1	Inelastic
IMP	0.807 < 1	Inelastic
America		
GDP	6.767 > 1	Elastic
DI	2.841 > 1	Elastic
IMP	1.303 > 1	Elastic

Table 2:- The Elasticity of CONS to
Source: Data is processed

High economic growth supports the aggregate consumption of a country. Because aggregate consumption is associated with human resource productivity that impacts on income distribution [8]. Income distribution supports real-sector productivity in a country that then impacts the country's economic acceleration. For the country of Indonesia, GDP against aggregate consumption is elastic. It means that the percentage of changes in Indonesian GDP caused a one percent change in the aggregate consumption of Indonesia during the year 1988-2017. And for the American state, GDP against the aggregate consumption is elastic. It means that the percentage of changes in American GDP caused a one percent change in the aggregate of American consumption during the year 1988-2017. Indonesia and the Americas demonstrate the elasticity of the GDP economy variable on aggregate consumption. The theory states that the GDP change of a country supports the aggregate consumption of economic goods and services in the country.

Overseas lending is an external resource in support of a country's development. Overseas lending results in a later interest burden, this can disrupt the country's financial stability. Interest expense also affects aggregate consumption through domestic output productivity [9]. For the country of Indonesia, debt interest on aggregate consumption is inelastic. It means that the percentage of changes in Indonesia's debt interest did not cause a one percent change in the aggregate consumption of Indonesia during the year 1988-2017. And for the American state, debt interest against aggregate consumption is elastic. It means that the percentage of changes in American debt interest led to a one percent change in the aggregate American consumption during the year 1988-2017. Indonesia and America show the difference in the elasticity of the economic debt interest on aggregate consumption. The theory states that a country's debt interest change can affect aggregate consumption through the country's output productivity.

A country import affects the country's aggregate consumption level. Imported economic goods and services reflect the domestic production needs resulting in maximum output [10]. For the country of Indonesia, imports against aggregate consumption are inelastic. It means that the percentage of changes in Indonesian imports did not result in a one percent change in the aggregate consumption of Indonesia during 1988-2017. And for the American state, imports against aggregate consumption is elastic. It means that the percentage of changes in American imports led to a one percent change in aggregate American consumption during the year 1988-2017. Indonesia and America show the difference in the elasticity of the import economic variables against aggregate consumption. The theory states that changes in imports of a country can affect aggregate consumption through the output productivity of the country.

Recommended to the Government through the Ministry of Trade and Bank Indonesia, related to the stability of the rupiah exchange rate in the international market for optimum productivity of output through economic variables that become indicators of Economic growth by accelerating the domestic economy.

III. CONCLUSION

The percentage change in the inflation rate is elastic causing a one percent change to Indonesian imports during the period 1988-2017. The percentage change in Indonesia's GDP value is elastic causing one percent change of Indonesia's aggregate consumption during the period of 1988-2017. The percentage change in foreign exchange reserves, the rate of inflation and aggregate consumption is elastic causing a one percent change to American imports over the period of 1988-2017. The percentage change in GDP value, debt interest and imports is elastic causing a one percent change to American aggregate consumption over the period of 1988-2017. In the American state, inter-economic variables are going to be different elasticity in Indonesia.

ACKNOWLEDGMENT

Thank you for all the partners who as references for supporting this article until finished.

REFERENCES

- [1]. M. H. Ahmed, Manzoor; Baloch, Akhtar; Khan, Khalid; Memon, "The Estimation of Aggregate Consumption Function for High Income Countries," *Int. J. Eng. Technol. Sci.*, vol. 54, no. 2, pp. 85–100, 2015.
- [2]. A. Aimon, Hasdi; Satrianto, "PROSPEK KONSUMSI DAN IMPOR KE DELAID IIN DONESIA TAHUN 2015-2020," *J. Kaji. Ekon.*, vol. III, no. 5, pp. 1–13, 2014.
- [3]. M. Dey, Sima Rani; Tareque, "Aggregate Consumption Expenditure and Economic Growth: Evidence from Bangladesh," *Glob. J. Manag. Bus. Res. B Econ. Commer.*, vol. 18, no. 5, pp. 1–11, 2018.
- [4]. D. M. M. H. Rangkyut, "Using the ECM Approach between Growth of the current Account Balance and Foreign Exchange Reserves in Indonesia," *AJHSSR*, vol. 3, no. 10, pp. 51–57, 2019.
- [5]. G. E. Nteegah, Alwell; Okpoi, "External Trade and its implications on Foreign Exchange Reserves in Nigeria," *Int. J. Arts Humanit. Soc. Sci.*, vol. 1, no. 5, pp. 21–32, 2016.
- [6]. D. Ahmed, Rizwan Raheem; Ghauri, Saghir Pervaiz; Vveinhardt; Streimikiene, "AN EMPIRICAL ANALYSIS OF EXPORT, IMPORT, AND INFLATION: A CASE OF PAKISTAN," *Rom. J. Econ. Forecast.*, vol. XXI, no. 3, pp. 117–130, 2018.
- [7]. B. Guncavdi, Oner; Ulengin, "Aggregate Imports and Expenditure Components in Turkey: Theoretical and Empirical Assessment," *Munich Personal RePEc Archive*, Istanbul, pp. 1–23, Jul-2008.
- [8]. P.-F. Bonsu, Christiana Osei; Muzindutsi, "Macroeconomic Determinants of Household Consumption Expenditure in Ghana: A Multivariate Cointegration Approach," *Int. J. Econ. Financ. Issues*, vol. 7, no. 4, pp. 737–745, 2107.
- [9]. M. Drehmann, Mathias; Juselius, "Do debt service costs affect macroeconomic and financial stability?," *BIS Quarterly Review*, BIS, pp. 21–35, Sep-2012.
- [10]. A. R. Chani, Muhammad Irfan; Pervaiz, Zahid; Chaudhary, "Determination of Import Demand in Pakistan: The Role of Expenditure Components," *Theor. Appl. Econ.*, vol. XVIII, no. 8(561), pp. 93–110, 2011.