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LONG-TERM ANALYSIS OF IMPORTATION OPENING IN THE BALI ECONOMY

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***Abstract*: Based on a long-term analysis, the study aims to find out: trends in the degree of openness of Balinese imports and their influence on the rate of growth of the Bali economy, the nature of import elasticities between provinces and abroad. Bali as a research area and was chosen because it has economic growth above the national level (5-6%) and is above the national level, the center of the tourism industry, high population growth (above 2% per year), and people's income measured by GRDP always increases. The developing economy of the people has encouraged their ability to import various types of commodities to meet consumption needs. This reality inspired researchers to focus on researching the import issues of the Province of Bali.**

The analytical tool used is linear trend, multiple log linear regression models, and long-term income elasticity. Based on the results of this study it is expected to be able to reveal, that in the long run the trend of import openness in the Bali economy is believed to increase in the future, then the GRDP has a positive effect on imports between provinces and abroad, and finally the income elasticity of imports between provinces is thought to be inelastic in nature. long-term. This inelastic nature indicates that the import of commodities between the Balinese provinces abroad is still limited to the main commodities used to meet consumption that is not produced in the local area.

With findings like the above, the public is advised to; the government, the consumer community, producers, to make an effort to increase production and at the same time productivity of imported commodities, which can already be produced in Bali. For consumers of imported goods, they want to reduce the consumption of imported goods and make maximum use of local products in all consumption activities

Keywords: **Economic Openness, Imported Products.**

I. INTRODUCTION

Meeting the domestic consumption needs of people for a country can be done through increasing domestic production or imports. These export and import activities are related to free trade. And if exports and imports are carried out in the fulfillment of consumption means the country concerned is said to have a dependency on international trade.

In theory, the export and import sectors can be seen in the calculation of the Gross Regional Domestic Product (GRDP) in regional size or Gross National Product (PNB) in the national size of a country. For example for the Province of Bali: GRDP = Konsumi + Investment + Government Expenditure + Export - Import. (BPS, Denpasar, 2016). Viewed from the import component in particular, the share of imports in GNP was 24.99 (2012) and decreased to 18.31 (2016). According to Sumitro (1982), the ratio of total imports exceeding 10% of GDP indicates that the country's economy is categorized as an open economy.

The problem of consumption of imported products so far has received a lot of attention from many circles. Sugawa Korry (Antara, 2014) highlighted that the Balinese still like to use imported fruit compared to local fruits which are generally used for ritual activities such as making gebogan, a combination of various types of fruits, cakes and mushrooms. Seeing the increasing trend in meeting the needs of imported commodities, there is one thing to watch out for is the dependence of the Province of Bali on products outside of Bali. Especially at the end of 2016 the World Trade Organization (WTO) ordered, Indonesia must lift barriers to horticultural imports such as fruits, vegetables and meat and poultry. As a result, Indonesia will be flooded with imported products.

Bali as a world tourist destination will not be separated from international trade. Until the end of 2017 the proportion of imports in the GRDP reached 14.23 percent (2010) and decreased to 9.61 percent (2017). Entering the first quarter of 2018, the GRDP ratio to imports again showed an increase of 9.68 percent. This according to BPS (2018) means that the dependence on imports has increased again.

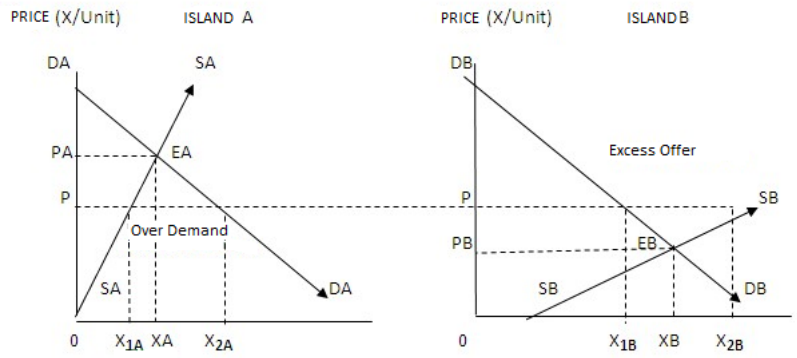
The main issues proposed are formulated as follows: 1) What is the long-term trend of Balinese import openness? 2) What is the effect of import openness on Bali's economic growth rate in the long run? 3) How big is the income elasticity of Bali Province imports in the long run.

II. LITERATURE REVIEW

A. Inter-Regional Trade Theory

The trade sector is one of the joints of the economy that contributes income that influences an area if the area has considerable potential. The superiority of the trade sector is very necessary to be developed as much as possible to get maximum income for the local area so that it indirectly affects the level of welfare of the population. Trading activities consist of export and import trade both between countries and between provinces (regions) or inter-island trade, with the types of commodities traded include commodities of agricultural, mining, industrial, plantation, fishery, animal husbandry and forestry, while for imports are capital goods and industrial raw materials and others. With the differences between regions in terms of population, community income, tastes, the demand curve differs between regions.

For more details, a country that has many islands and is divided into provincial regions such as the Indonesian state of international trade theory can be applied using the following explanation. Suppose here that between islands A and B at first there was no contact at all between the people between the islands, whose reviews were based using Picture 1.



Picture: 1
Inter-Regional Trade --- Partial Equilibrium Approach
(Source : Soediyono R. 1987)

In Figure 1, the market demand curve for island A will be X as DA - DA curve, while a similar curve for island B is marked DB - DB, it appears that the elasticity of the two curves is different. Similarly, the market supply curve for an item's tendencies also differs between regions. This is due to differences in the quantity, quality and composition of existing resources in the region. In Figure 1, the market supply curve will be X goods for residents of island A in the figure as the SA-SA curve, while residents of island B as SB-SB curves, it is also seen that the two elasticity curves are different.

The occurrence of sale and purchase of goods X between residents of island A and residents of island B in the form of the flow of goods X and island B to island A, resulted in one side increasing the number of goods X that can be purchased by consumers on island A, on the other hand on island B there is a reduction in the number of items X that can be purchased by local consumers. As a result and the incident, the price of item X on island A has a tendency to go down while on island B has a tendency to rise. The decrease in the price of goods X on island A, causes the number of goods X which island A consumers want and are able to afford to buy for consumption increases. The opposite happened on island B. As a result of the increase in the price of goods X on island B, the willingness of consumers to buy goods X decreased. For producers on the other hand, they will give a reaction that is the opposite of the reaction of consumers. As a result of the decline in the price of goods X on island A, the producers of goods X on island A will reduce their production. Instead the producers on island B; see the market price of the goods produced increases, their willingness to produce X goods will increase.

As a result of increased consumption and reduced production of goods X on island A, there is an excess of consumption and production. On the other hand, on island B where there is an increase in production and a decrease in consumption there will be excess production above consumption. It is easy to understand that excess consumption of X goods on island A will be fulfilled and excess production shipments on island B. The process of change above, namely price changes, changes in the quantity produced and changes in the quantity consumed for goods X, both on island A and island B will continue and will cease only if the amount of excess production of goods X on island B has the same amount or quantity of excess consumption of goods X by residents of island A.

In the example picture: 1 the changes mentioned above are stopped at the height of prices both on island A and on island B for goods X per unit as high as OP because at the height of the price the amount of excess consumption of goods X on island A, which can also be called supply deficiency , lack of supply or excess demand for goods X of K equals the magnitude of the excess supply of goods X, which is also commonly called the excess supply or the surplus of goods X in country B, which is the same as L. It should be pointed out here that the similarity of the goods X equilibrium price in the area minus goods X island A with the price of equilibrium goods X in the area of surplus goods X island B is based on the assumption that to move goods X and island B to island A, or vice versa, altogether no expenditure on transportation costs is needed.

After we find the new goods X equilibrium price, which is as high as OP, both on island A and on island B, we will also be able to know the amount of production and consumption of goods X both at A and at B. On island A, the amount of equilibrium production item X is OX1A, and the amount of equilibrium consumption of item X is OX2A. On island B the amount of product equilibrium X is 0X1B units and the amount of equilibrium consumption for the same item is OX2b. Based on the example above, it can be explained that, at the OP price level on both islands namely A and B, things will happen as follows: (1) On Island A, production is minus (DA> SA), and this condition is utilized by producers on Island B by selling surplus production (SB> DB) to A. Island, (2) On Island B, production is surplus (SB> DB), and this condition is used by consumers on Island A by making purchases to meet consumption needs at a lower price than B. Island.

B. Theory of International Trade

In general there are four famous International Trade Theories, namely:

1) Absolute Advantage Theory by Adam Smith

In the theory of absolute superiority, Adam Smith put forward the following ideas.

a. International Specialization and Production Efficiency

b. Division of Labor (International Division of Labor)

2) Comparative Advantage Theory by David Ricardo

The Theory of Comparative Excellence was invented by David Ricardo as an effort to improve Adam Smith's theory. Comparative advantage occurs if a country is superior to the two kinds of products produced, with lower labor costs when compared to labor costs in other countries. If the two countries trade, then they will benefit, by specializing in one product.

3) Reciprocal Demand Theory by John Stuart Mill

The Theory of Reciprocal Demand put forward by John Stuart Mill, who continues David Ricardo's Comparative Advantage Theory, which is to find a balance point between two goods exchanged by two countries by comparing the exchange or by determining the Base of Domestic Exchange (DTD). The purpose of the Reciprocal Theory is to balance supply with demand, because supply and demand determine the amount of goods to be exported and imported.

4) Theory of International Trade of Mercantilism

Mercantilism theory has the main principles, as follows: limiting imports and increasing exports, seeking an active trade balance, expanding colonies, trade monopolies, looking for as much precious metals as possible. The focus of mercantilism is to increase exports above imports, and excess exports can be paid for with precious metals. Another mercantilist policy, is trying to monopolize trade and obtain colonies for marketing industrial products. The pioneers of mercantilism theory are: Jean Baptiste Colbert, Sir Josiah Child, Von Hornich, Jean Bodin and Thomas Mun.

C. Comparative Research Results

The Chairman of the East Java Economic Team, Hadi Prasetyo (Kabargress, 2004) believes that trade between provinces and between islands is one of the solutions to improve the regional economy. Bhirawa (2014) revealed trade between East Java regions was carried out by opening trade representatives outside East Java Province, thus making East Java Province now has more than 30 percent of trade in Indonesia (http: // Harianbhirawa. Co.id/2014/05).

Indonesia has become increasingly globally integrated over the past half century, with the ratio of trade to GDP rising from 30 percent in 1970 to 60 percent in the 2000s (ADB et al, 2010). By the late 1980s, exports (and imports) had begun to rise strongly as a result of the adoption of the Government's trade liberalization policy and as Indonesia's accelerated economic industrialization. From this time until the Asian crisis, Indonesia's trade ratio continued to increase (Stephen Elias and Clare Noone, 2011). Sjamsu Rahardja and Gonzalo Varela (2014) suggested import imports and use of intermeadiate imports in Indonesia, where among producers in Indonesia have produced greater growth in output, greater growth in added value, higher productivity, and, consequently, more able to pay workers.

Doroodian (1994) estimated the elasticity of Saudi Arabia's aggregate imports and found income elasticity and long-term price elasticity to be very significant compared to the short run. It was also found by researchers that the elasticity of real income is 0.22 in the short run and 0.47 in the long run, which implies that imports are considered as goods that are needed in Indonesia. The elasticity of imports against own prices is - 0.68 in the short run and - 1.45 in the long run, indicating that import demand tends to be elastic in the long run. On the other hand, the elasticity of imports on the price of domestic goods is 1.3 in the short run and 2.9 in the long run, indicating that consumers are more responsive to the same change in domestic prices compared to the same change in import prices.

According to Siddgcue (1994) the results of empirical research further prove that real income and relative prices determine once the demand for imports. The researcher found that the income elasticity was greater than one (1) although it was not very significant, which showed that in general it was said that to Indonesia was elastic. When economic growth imports grow at a high rate. This proves several opportunities for potential and existing Indonesian exporters. Price elasticity is found to be less than one (1) in absolute value but not so significant, which indicates that demand for imports in Indonesia is inelastic.

Moran (1989) developed two types of demand-import-demand models. The first model considers real income, relative prices, foreign exchange earnings and international reserves as determinants of imports. This model follows both the traditional and Hemphill models. In the second model, both endogenous import volumes and relative prices are determined. According to the model real income and relative prices are important in determining total imports. But the effect of foreign exchange constraints is very strong on import behavior in developing countries. Tuncer (2002) examined the relationship between GDP, exports, imports and investment in Turkey. The analysis shows that GDP has one way of affecting exports and investment. Exports do not affect GDP and the causality of investment to GDP is weak. Bayraktutan and Bıdırdı (2010) sought to identify the main determinants of imports in Turkey. Using the Engle-Granger two-step forecasting method, they estimate long-term demand for imports. Analysis shows that Turkish imports are more sensitive to economic growth than the real exchange rate. Yıldız and Ay (2011) investigated the sustainability of major import growth in Turkey. Their test results show that imports of capital and intermediate goods to GDP are causality.

Based on the research results of other researchers related to the import problem here, there appear to be differences, but there is also a slight similarity with the results of this study. The research equation, among others, is viewed from the perspective of the occurrence of import activities between regions in Indonesia, namely between provinces as well as in other countries. Their research generally emphasizes the issue of the effect of changes in people's income where some measure using economic growth in addition to being measured by regional / regional and national income on imports. Whereas in the current study the emphasis is more on the openness of imports in Bali, considering that Bali has recently become more open to international trade when viewed from an important perspective

III. RESEARCH METHODS

The research area is the Province of Bali. The Province of Bali was chosen because: (a) this area is a world tourism destination, (b) the economy of Bali is open, ie the proportion of imports above 20 percent of GRDP, (c) the population of Bali has increased above 1.5 percent per year, so consumption needs of imported goods are expected to increase in the future.

This research uses secondary data. Secondary data is data published by various sources who are not the first data owners.

The data in question include: imports between provinces, Bali's GRDP, inflation rates, and others. The nature of the data is qualitative and quantitative. Qualitative data that is data in the form of not numbers but in the form of information, information, explanations that exist in various books, literature, and others. Quantitative data collected by library research includes data in the form of numbers, which have been systematically compiled by the data source in the form of an annual report book. Secondary data used in this study were sourced from several agencies, such as: BPS-Bali Province, BPS-City District in Bali Province, Bank Indonesia-Denpasar, Department of Industry and Trade of Bali Province.

Time series data is used in this study by taking the period 1985-2017 as a sample. During that period the Province of Bali experienced various economic disruptions, such as: the economic crisis (1997/1998 and 2007/2008), the Jimbaran Kuta - Bali bombings (2002 and 2004), the global crisis of Greece and the United States (2012) and the natural disaster of Mount Agung erupted 2017. As a result of these events, the economy of Bali has experienced a slowdown in foreign trade until recently.

Data Analysis Method

1) Trend of import transparency in Bali Province

The trend of import transparency in Bali Province is estimated by: KI = bo + b1Sc + b2 Tr ... (1).

Note: KI = (M / PD) x 100%. KI = percentage of imports of Bali Province to GRDP (measuring the economic openness of the Province of Bali), bo = constant, b1Sc = coefficient of economic shock, b2Tr = coefficient of trend or tendency of economic openness of the Province of Bali.

KI data is used to estimate how much exposure to Bali imports. The results of this trend coefficient analysis show the estimated% change in people's income, which is used to meet the demand for imported Balinese goods or how big the impact of the demonstration effect has on the local economic conditions. If the percentage change in public income is higher, the greater exposure to imports of the Province of Bali. This means that the proportion of the use of community income as measured by the GRDP of the Province of Bali, is increasingly large for the cost of imports. This is a sign of the growing effect of the demonstration that has permeated the pattern of consumption of imported public products.

Bali's economic growth is analyzed with the following equation:

PE = ao + a1KI + a2KU + a3IN + a4WS + a5SE + er …… .. …… (2).

Note: PE = Bali economic growth (GRDP) at current prices in percentage / year; IC = import openness as a percentage; KU = Rp / US $, IN = inflation as a percentage, SE = economic shock = dummy variable (ie: the value of 0 under normal year conditions and the value of 1 year of shaking conditions), er = error term (errors in the regression model).

The elasticity of community income (long-term) towards Balinese imports, is analyzed using the equation: (Gujarati, 1980)

Log Mt = Log a0 + a1 Log PDt + (1 - δ) Log Mt-1 + a2 LogWSt + a3 Log PPt + a4 Log INt + a5 Log KUt + a6 Log SCt + Log Etr …… …… (3).

Where: t = a certain year and t-1 = a year before a certain, δ coefficient of adjustment of the variable Mt with Mt-1, M = number of imports (Rupiah); PD = Gross Regional Domestic Product at current prices (Rupiah), WS = number of foreign tourists to Bali (people), PP = Population (people), IN = inflation (percent), and Er = error term (errors in the regression model).

(1) Short-term elasticity coefficient = Esr

In equation (3) the coefficient a1 = income elasticity (ηI) to the import of Bali Province. The coefficient ηI is calculated as follows: assume zero (0): Log.ao; a2 Log. WS; a3 Log.IN; Log er. Equation (3) becomes:

Log Mt = a1 PDt Log or ηI = a1 = Mt / LogPDt Log …… ... …… .. …… (4).

α1 = ΔMt / Mt / ΔPDt / PDt = Esr …… .. …… (5).

(2) Long-term elasticity coefficient = Elr

α1 = (1 / δ) ΔMt / Mt / ΔPDt / PDt = 1 / δ Esr …… ... …… .. (6).

IV. ANALYSIS RESULTS AND DISCUSSION

A. Trend of Import Openness

The Openness Import Trend equation is structured, as follows:

MIt = bo + b1TRt …… .. (1).

Using Appendix 1 data, the estimation results obtained are compiled, as follows.

MIt = - 6,034000 + 3029,045 TR_t

(t = -9,975) (t = 10,020)

(Sig. = 0,000) (Sig. = 0,000)

F = 100,408

(Sig. = 0,000)

R = 0,868

R^2 = 0,753

The trend equation coefficient above is interpreted statistically, as follows.

(1) For the coefficient bo = - 6.034000 means that the Openness of Imports (MIt) every year is Rp. 6.034000 billion and there have been signs of decline over the last 35 years.

(2) For the coefficient b1 = 3029,045, it means that every year (t) there is an increase in Import Openness (MIt) changes of Rp 3029,045 billion per year over the last 35 years.

By conducting a statistical t test on the results of estimating the coefficient of this trend, the results are known to be significant at the 5 percent significance level. In accordance with the results of data analysis, it is known that constants and trend coefficients (TRt) each have a significance value (sig) of 0,000 (See Lampiran I). For the F test the results obtained were also significant at the 5 percent significance level. The correlation coefficient between Openness Imports with the year yield was 0.868 which is said to have a strong relationship. Then the value of R squared is 0.753 or about 75.30 percent of the variation in Openness Import change is determined by the development of time (years).

B. Estimated GDP equation (adhb)

The GRDP (adhb) equation is arranged, as follows:

PDt = bo + b1MIt + b2KUt + b3INt + b4WSt + b5SEt + εt ……. ... (2).

Using the results of data analysis in Appendix 2, the PDt estimation equation can be arranged, as follows.

PDt =	-15542.294	+ 0,712 MIt	-0.939 KUt	-33.193 INt	+ 0.031 WSt	+ 1348.332 SEt
	(t=-3.948)	(t=5.391)	(t=-1.268)	(t=- 0.196)	(t=8.853)	(t=0.351)
	(Sig.=0,000)	(Sig.=0,000)	(Sig.=0,215)	(Sig.=0,846)	(Sig.=0,000)	(Sig.=0,728)

F = 320.009

(Sig.=0,000)

R = 0.991

R^2 = 0,982

The coefficient of this regression equation is interpreted statistically, as follows.

(1) For the coefficient bo = - 15542,294 means that the regional GDP (adhb) of Bali (PDt) is estimated at Rp. 15542,294 billion per year, and there are signs of declining if it is assumed that changes in independent variables (MIt, KUt, INt , WSt, SEt) are stated as zero (0).

(2) For the coefficient b1 = 0.712, it means that an increase in Openness of Imports (KI) of Rp. 1 billion is expected to reduce the regional GDP (adhb) of Bali (PDt) by Rp. 0.712 billion per year during the period (1984 - 2018).

(3) For the coefficient b2 = - 0.939, it means that a decrease in the exchange rate (KUt) of Rp 1,000 to 1 US $, estimated regional GDP (adhb) of Bali (PEt) decreased by Rp 0.939 billion per year during the period (1984 - 2018).

(4) For the coefficient b3 = = 33.193 means that an increase in inflation in the relatively small area of Bali by 1 percent, it is estimated that the GDP (adhb) of the Bali region will decrease by Rp 33.193 billion per year during the period (1984 - 2018).

(5) For the coefficient b4 = 0.031 means that the increase in the arrival of foreign tourists to Bali by 1000 people, estimated GDP (adhb) of Bali (PEt) increased by Rp 31 billion per year during the period (1984 - 2018).

(6) For the coefficient b5 = 1348.332, it means that although there are economic problems (SEt) such as; economic crisis, terrorist, plague, natural disaster and others), it is estimated that the regional GDP (adhb) of Bali (PEt) will increase by Rp 1248.332 billion per year during the period (1984 - 2018).

By conducting a statistical t test on the results of the estimated regression coefficients, the results are known to be significant at a significance level of 5 percent, namely for constant values, and the independent variables namely Openness Imports (MIt) and the number of Foreign Tourists (WSt) each have significance (sig.) of: (0,000). Meanwhile, for variables other than constants, Import Leaks and Foreign Tourists, it is declared insignificant (see Appendix 2). If the F test results are known to be significant with Sig. = 0,000. Then the correlation coefficient results are seen, known to be 0.991 which includes a very strong correlation between the GRDP variable (adhb) of the Bali region with all independent variables. And the results of the coefficient of determination show that R2 = 0.982, which means that 98.20 percent of the GDP variation (adhb) in Bali is determined by the variation of the independent variable and the remaining 18.80 percent is determined by variables outside the estimation mode

C. Estimation of Import Openness Equations

The GRDP (adhb) equation is arranged, as follows:

$Mt = bo + b1PDt + (1-\delta)\ Mt-1 + b2WSt + b3PPt + b4INt + b5KUt + b6SCt + \varepsilon tr$ ... (3).

Using the results of data analysis in Appendix 2, the PDt estimation equation can be arranged, as follows.

MIt =	-72305.253	-0.043 PDt	+ 0.811MIt-1t	-0.002WSt	+ 26.635 PPt	- 23.936 INt	-.314 KUt
	(t=-2.413)	(t=-0.333)	(t=3.465)	(t=-0.512)	(t=2.400)	(t=0.281)	(t=-.522)
	(Sig.=0.023)	(Sig.=0.742)	(Sig.=0,002)	(Sig.=0,612)	(Sig.=0.023)	(Sig.=0.780)	(Sig.=0.606)
	F = 291.186						
	(Sig.=0,000)						
	R = 0.992						
	R^2 = 0,984						

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The coefficient of this regression equation is interpreted statistically, as follows.

(1) For the coefficient bo = - 72305.253 means that Import Openness (MIt) is estimated at Rp. 72305.253 billion per year, and there are signs of declining if it is assumed that changes in independent variables (PDt, MIt-1, WSt, PPt , INt, KUt) are stated as zero (0).

(2) For the coefficient b1 = - 0.043, it means that an increase in the GRDP (adhb) of Bali in the amount of Rp. 1 billion is expected to reduce import transparency by Rp. 0.043 billion per year during the period (1984 - 2018).

(3) For the coefficient b2 = 0.811 means that an increase in import openness of year t-1 of Rp 1 billion is expected to increase import openness of t year of Rp 0.811 billion per year during the period (1984 - 2018).

(4) For the coefficient b3 = - 0.002, it means that the increase in the arrival of foreign tourists to Bali by 1000 people, is

estimated to reduce the Openness of Imports by Rp. 0.002 billion per year during the period (1984 - 2018).

(5) For the coefficient b4 = - 0.002 means that the increase in the arrival of foreign tourists to Bali by 1000 people, is estimated to reduce the Openness of Imports by Rp. 0.002 billion per year during the period (1984 - 2018).

(6) For a coefficient of b5 = 26,635, it means that an increase in the number of Bali's population of 1000 people is estimated to reduce import openness by Rp. 26.635 billion per year during the period (1984 - 2018).

(7) For the coefficient b6 = -23,936, it means that an increase in inflation in the relatively small area of Bali by 1 percent, is expected to decrease Openness of Imports by Rp 23,936 billion per year during the period (1984 - 2018).

(8) For the coefficient b7 = - 0.314, it means that an increase in the exchange rate (KUt) of Rp 1,000 to 1 US $, is expected to decrease Openness in imports by Rp. 0.314 billion per year during the period (1984 - 2018).

By conducting a statistical t test on the results of the estimated regression coefficients, the results are known to be significant at a significance level of 5 percent, namely for constant values, and independent variables namely the GRDP (adhb) of the Bali area (PDt) and the Openness of t-year imports (MIt -1) and Total Population (PPt) with significance (sig.) Of: (0.023),: (0.002), (0.002) and (0.023). Whereas, for variables other than constants, GRDP (adhb), Openness t-1 Imports and Population Amount, were declared insignificant (see Appendix 3). If the F test results are known to be significant with Sig. = 0,000. Then the correlation coefficient results are seen, known as 0.992 which includes a very strong correlation between the Import Openness variable with all independent variables. And the results of the coefficient of determination show R2 = 0.984 which means that 98.40 percent of Import Openness variation is determined by the variation of the independent variable and the remaining 18.60 percent is determined by variables outside the estimation model.

D. Estimation of the Bali Regional Revenue Elasticity Coefficient

In estimating the MIt equation the PDRB elasticity coefficient on the basis of the prevailing price (adhb) of the Bali region (PDt) (ηI) to Import Openness (MIt. Calculated, as follows:

Esr = ΔMt / Mt / ΔPDt / PDt …… .. …… (4).

Esr = ΔMIt / ΔPDt PDt / MIt = - 0.043 (52832.59 / 27179.98) = - 0.084

With this result, Esr is inelastic because it is smaller than one (1)

(2) Long-term elasticity coefficient = Elr

ELr = (1 / δ) ΔMt / Mt / ΔPDt / PDt = 1 / δ Esr …… ……. (5).

With: 1 / δ = 1 / 0.189 = 5.291 and Esr = -0.084

So ELr = 1 / δ Esr = 5,291 (-0,084) = -0,444

With this result, Esr is inelastic because it is smaller than one (1).

E. Economic Meaning Results of Statistical Analysis

1) Results of the Openness (KI) Trend trend

Based on the results of the trend it is known that the development of Import Leakage in Bali, on average for the past 35 years will still continue, and is even expected to experience changes that continue to increase in the future. The increase in changes to the Openness of Imports was caused by many factors, but one that appeared was the factor of limited natural resources (SDA) owned by the Bali region, namely the Bai area was unable to produce and provide products or commodities needed by the population so that the commodity had to be imported from the province or other regions. For example: daily population consumption commodities include: sugar, salt, fruits, bottled water / gallon, and others; building material commodities, including; cement, steel, tile, wall paint, etc., fuel commodities such as; gasoline, kerosene, petramax, petralite, gas, and others.

2) Estimation results of the regional GDP (adhb) equation in Bali (PDt)

The estimated results of the significant PDRB regression coefficient (ADHB) in the Bali region are the Import Openness (MIt) variable and the number of tourists (WSt). First, import openness is indicated to have significantly triggered an increase in the GRDP (adhb) of Bali, in the last 35 years. Increased import openness is interpreted as the regional income

stream of Bali to other regions and other countries in Indonesia, which is used to purchase imported commodities every year. Estimation results show that the percentage change in the flow of funds to meet the import needs of the Bali region, is greater than the percentage change in GDP (adhb) per year. This condition can certainly be a burden for the Bali region, because it must be able to continue to increase the GRDP (adhb) in a significantly greater percentage, compared to the Import Openness that occurs every year.

Secondly, the arrival of tourists to Bali seems to have a significant effect on the economy of Bali, this is indicated through an increase in the regional GDP (adhb) of Bali every year for the past 35 years. Going forward, to improve the economy of Bali, this region must always strive to increase the number of tourist visits to Bali, because the contribution of foreign tourists visiting foreign exchange is significant for the region as a world tourist destination. Therefore, the Bali region is said to have a very high economic dependence from the development of tourism until the last year. Bali Provincial BPS Data, Kwt. I - 2019 shows that the economic structure of Bali in the first quarter of 2019 was still dominated by category I businesses (providing accommodation and eating and drinking) with a contribution of 23.28 percent.

3) Estimation results of the Import Openness (MI) equation

The estimation result of MIt equation shows that the GRDP variable (adhb) of Bali (PEt), Import Openness of the previous year (MIt-1) and population (PPt) is significantly influencing Import Openness (MI). The GRDP (adhb) of the Bali region indicates that an increase in the GRDP (adhb) of the Bali region is believed to be able to reduce the burden of Bali's Openness of Imports every year for the last 35 years. Therefore, the regional GDP (adhb) needs to be continuously improved in the future, so that the needs of imported commodities from other provinces or regions can be met, in order to meet the consumption needs of the population. Such as: daily consumption needs: granulated sugar, salt, bottled water or gallons, fuel; and the need for local industrial raw materials, namely gold, silver and others for the handicraft industry.

4) The population that has been increasing every year in the Bali region over the past 35 years, shows a significant influence on the increase in the import openness of the region. This condition indicates that the increasing number of population means that there are also more needs for imported goods between Bali areas that are used to meet the needs of final consumption or intermediate consumption (ie industrial raw materials) of the population. The increase in population seems to be one of the causes of the increasing need for imports of commodities between Bali. Therefore, in the future serious handling of the following problems is needed, firstly increasing population and secondly increasing regional income in Bali.

5) The results of the regional income elasticity coefficient in Bali are short-term and long-term

The estimated results of the PDRB elasticity coefficient (adhb) of the Bali region on Openness Imports (KI) are inelastic both in the short term and in the long run, this indicates that Openness of Imports continues to increase every year for the last 35 years. The results of this estimate inform about the condition of the import of commodities in Bali, as something that cannot be avoided in the future. In addition, the import of Balinese commodities in real terms revealed that the import needs were as necessary

V. CONCLUSIONS AND RECOMMENDATION

Several conclusions can be made in this section, namely:

1) The development of Bali's regional import leaks will continue going forward. This type of commodity imports between regions is not produced in the Bali area, because Bali does not have the natural resources to produce these commodities. However, this commodity is needed by the population even as a secondary commodity.

2) Import Leaks are predicted to continue to rise going forward. This information can be used as a base for residents and local governments, to continue working to increase regional income, so as to offset the increased need for imported commodities between Bali regions, especially products that cannot be produced in their own regions.

3) The visit of foreign tourists as a tourism sector, until the last year has been a source of regional income for Bali. The tourism sector gives the biggest contribution in the regional GRDP of Bali compared to others. The number of foreign tourists who are quite a lot every year, is believed to have a role in increasing the need for imported products, to meet their consumption.

4) Population growth, which on average continues to increase every year, is one of the triggering factors for increasing leakage of imports across Bali so far. Moreover, supported by an increase in public income which is reflected through the GRDP which continues to increase every year.

5) The elasticity of Bali's regional income which is inelastic causes the population to spend a more incompetent portion of the income on imported commodities in the Bali region if their income increases. This reflected that imported commodities in Bali are products that are indeed needed to fulfill consumption.

Some suggestions given below are adjusted to the conclusions. The intended advice is:

1) Imported commodities in Bali need the population's efforts to a minimum, especially for the needs of commodities that can already be produced in their own area. Then there is an effort by the population to be more creative in utilizing imported products from Bali, by increasing the added value as raw material. For example, sugar products are not only used for the end but can be used to produce new products. In this way the development of inter-regional leakage will be reduced in the future.

2) Increased regional income by residents and local governments must continue to be pursued, inter alia; by increasing the quality of human resources (HR) through the mastery of information and communication technology to be able to compete in the global economy, by developing a quality creative economy in the face of increasingly competitive business competition between regions and countries. And others.

3) The current Balinese economy is heavily reliant on the tourism sector, but to improve the sector it requires efforts to preserve culture and the environment as a support for the development of sustainable tourism. On the other hand diversification of business activities needs to be done, in order to avoid dependence on one sector such as tourism, given that this sector is frail with non-economic disturbances such as natural disasters, security, politics, and others.

4) Increasing population is actually needed, but the next generation produced must be of higher quality, especially in mastering technology, information and communication, in order to face increasingly competitive competition in the era of the global economy.

5) In maintaining the stability of the regional economy it is necessary to make significant efforts from the population and the government in increasing regional income through hard work. Because of the efforts to increase regional income, it can be utilized to offset the increasing openness of Bali's regional imports and draining a lot of regional income..

REFERENCES

[1] Anne Booth dan Peter Mc Cawley, 1980, *Ekonomi Orde Baru*, Jakarta, Penerbit LP3ES.

[2] Bayraktutan, Y.Bıdırdı, H., 2010, The Basic Determinants of Turkish Import (1989-2004), *Ege Academic Review*, 10 (1).

[3] Bui Trinh, Pham Le Hoa and Bui Chau Giang, 2008, Import multiplier in input-output analysis, Depocen, Working Paper Series No. 2008/23, Vietnam, http://www.depocenwp.org.

[4] Boedino, 1983, *Ekonomi Internasional*, Yogyakarta, Penerbit BKFE.Universitas Gadjahmada.

[5] C.W. Kurniawan, K.S. Budhi, N.D. Setiawina, I.K. Djayastra, State owned foreign exchange banks analysis to import loans of non-Oil and gas sectors in Indonesia 2010 - 2015. International Journal of Applied Business and Economic Research (Scopus - Q4 ; SJR 2018 0.11). 15, 26, 111-124.

[6] Dewi C., 2014, Tinggi, Ketergantungan pada Alat Produksi Impor, Denpasar, *Antara*, 21/6/2014.

[7] Deliarnov, 2006, *Ekonomi Politik*. Jakarta, Penerbit Erlangga.

[8] Doroodian, K.R.K. Khosal dan S. Al-Muhanna, 1994, An Aximination on the Traditional Aggreagate import Demand Fucntion for Saudi Arabia. *Apllied Economic*s, 26.

[9] Eko Atmadji, 2004, Analisis Impor Indonesia, Jurnal Ekonomi Pembangunan Kajian Ekonomi **N**egara Berkembang, Vol. 9 No. 1, Juni 2004.

[10] Gerni, C.Emsen S.Deger K., 2008, İthalata Dayalı İhracat ve Ekonomik Büyüme: 1980-2006 Türkiye Deneyimi, 2. Ulusal İktisat Kongresi/20-22

[11] Gujarati, Damodar N., 1980**,** *Dasar-Dasar-Ekonometrika*, Jakarta, Penerbit Salemba Empat.

[12] Hamdy Hady, 2001, *Ekonomi Internasional – Teori Dan Kebijakan Perdagangan Internasional*, Buku I- Edsi Revisi, Ghalia Indonesia, Jakarta.

[13] Halit Yanikkaya, 2002, Trade openness and economic growth: a cross-country empirical investigation, *Journal of*

Development Economics, No. 72, 2003.

[14] Hafeez UR Rehman, 2007, An Econometric Estimation of Traditional Import Demand Function for Pakistan, *Pakistan Economic and Social Review*, Volume 45, No. 2 (Winter 2007).

[15] Leonard Cheng Mayumi Fukumoto, 2006, Estimation of China's Disaggregate Import Demand Functions, Hong Kong University of Science and Technology.

[16] Mangkoesoebroto, Guritno, dan Algifari, 1992, Teori Ekonomi Makro, SekolahTinggi Ilmu Ekonomi YKPN Yogyakarta, Yogyakarta.

[17] Moazzami, B., and Wong, E. (1988), Income and price elasticities of China's trade, Asian Economic Review, 30.

[18] Moran, C., 1989, Imports Under A Foreign Exchange Constrain, *The World Bank Economic Review*, Vol.3, No.2.

[19] Murthi, Ngurah Wisnu., Marta, I.N.G. 2019. Import Disclosure in Economy of Small Islands Of Bali, Indonesia. International Journal of Management and Commerce Innovations. Vol. 7, Issue 1, pp: (1-9).

[20] Ngurah Wisnu Murthi, M.K.S Budhi, I.B. Purbadarmaja. Pengaruh Pajak Progresif terhadap Perilaku Konsumtif, Basis Pajak, Kepatuhan Wajib Pajak dan Pendapatan Daerah Provinsi Bali, E-jurnal Ekonomi dan Bisnis Universitas Udayana 4, 1001-1028.

[21] Ngurah Wisnu Murthi. Pengaruh Tingkat Inflasi dan Pendapatan Nasional Terhadap Neraca Saldo Neraca Transaksi Berjalan Indonesia Tahun 2005 - 2015. universitastabanan 1 (Vol.14 no 2 September 2017), 179.

[22] Ni Rai Artini, Murthi, Ngurah Wisnu. 2019. Inter-Import Deposition In The Bali Economy. International Journal of Management and Commerce Innovations. Vol. 7, Issue 2, pp: (290-298).

[23] Yıldız, E. B., Berber M., 2011, Sustainability the Import-Led Growth: The Case Of Turkey (1989–2007), *İİBF Dergisi*, Cilt.25, Sempozyum Özel Sayısı.

[24] Samsumbar Saleh, 2010, Asean Economic Integration: Trade Creation or Trade Divertion For Import of Indonesia Manufactures, *Economic Journal Of Emergency Markets*, April 2010, 2 (1).

[25] Riccardo Faini, Lant Pritchett, and Fernando Clavijo, 1988, Import Demand in Developing Countries Country Economic Department the World Bank, November 1988, WPS 122

[26] Sumitro, Djoyohadikusumo, 1982, *Perekonomian Indonesia Menjelang Akhir Pelita v Dan Perspektif Pembangunan Jangka PanjangTahap II*, Jakarta.

[27] Siddigcue, 1994, Estimation of an Import Demand Function for Indonesia, 1971-1993, *Paper*, Departement of Economis The University of Western Australia.

[28] Sukirno, S., 1999, *Pengantar Teori Makro Ekonomi*, Jakarta, PT. Rajagrafindo Persada.

[29] Sjamsu Rahardja and Gonzalo Varela, 2014, Nothing to Fear but Fear Itself: Evidence on Imported Intermediates in Indonesia, *Economic Premise-World Bank*, No. 138. www.worldbank.org/economicpremise.

[30] Stephen Elias and Clare Noone, 2011, The Growth and Development of the Indonesian Economy, Bulletin, December Quarter 2011. http://www.rba.gov.au/publications/bulletin.

[31] Senhadji, A. (1998), Time - series estimation of structural import demand equations: A cross-country analysis, *IMF Staff Papers*, Vol. 45, No. 2.

[32] Tang, T.C. (2003), An empirical analysis China's aggregate import demand function, China *Economic Review*, 14.

[33] Tuncer, 2002, *Türkiye'de İhracat, İthalat ve Büyüme: Toda-Yamamoto Yöntemiyle Granger Nedensellik Analizleri (1980-2000)*, Çukurova Üniversitesi, Sosyal Bilimler Enstitüsü, *Enstitü Dergisi*, 9 (9).

[34] Todaro, M.P. 2000. *Economic Development*. Addison-Wesley, Harlow.

[35] V. Jeníček, V. Krepl, 2009, The role of foreign trade and its effects, Faculty of International Relations, University of Economics, Prague, *Agric. Econ. – Czech*, *55*, 2009 (5).

[36] _____, 2014, Masyarakat Bali Masih Tergantung Buah Impor, Denpasar.