

# THE EFFECT OF EXCHANGE RATE FLUCTUATIONS ON BALI TOURISM SECTOR<sup>1</sup>

## *DAMPAK FLUKTUASI NILAI TUKAR MATA UANG ASING TERHADAP PARIWISATA BALI*

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### **Abstract**

Most of the income for Bali tourism comes from foreign tourists expenditure which accounts for more than half of the local tourists. The fact therefore underlines the importance of foreign tourist growth observation due to its significance for Bali economy. This research aims at estimating the change of tourists arrival because of the fluctuation of IDR (depreciation and appreciation) which allegedly thought as one of the underlying factors affecting the number of tourists arrival. This research also aims at analyzing the sensitivity of foreign tourists to the change of traveling cost and at analyzing the tourists destination shift should there be any change of traveling cost and also at analyzing the characteristics of the foreign tourists affected by the exchange rate fluctuations. Event studies showed that exchange rate fluctuation did not affect foreign tourists decision on coming to Bali. This was due to the fact that foreign tourists arrival escalates regardless the exchange rate fluctuation (depreciation and appreciation). Meanwhile, descriptive analyses showed that only minority of foreign tourists were affected by exchange rate fluctuations with analysis characteristic of the country of origin. Moreover, despite the rise of traveling cost to Bali, more than 50% respondents chose to travel to Bali and although there was a change of destination, more than 30% respondents chose other Asian countries as a replacement. It was also revealed that the older the tourists, the less the effect of exchange rate fluctuation on their decision to visit Bali.

**Keywords:** tourism, exchange rate, foreign tourist

**JEL Classification:** L83, F31, C42

### **Abstrak**

*Pendapatan pariwisata Bali mayoritas berasal dari pengeluaran wisatawan mancanegara di Provinsi Bali yang mencapai lebih dari dua kali lipat belanja wisatawan nusantara. Oleh karena itu, perkembangan akan kunjungan wisatawan mancanegara dirasa perlu untuk dilakukan mengingat dampaknya yang signifikan. Penelitian ini bertujuan untuk mengestimasi perubahan kunjungan wisatawan setelah terjadinya pelemahan dan penguatan nilai tukar rupiah yang diduga sebagai salah satu faktor yang mempengaruhi kedatangan wisatawan mancanegara. Selain itu, studi ini dilakukan untuk menganalisis sensitivitas wisatawan mancanegara pada perubahan harga perjalanan wisata, menganalisis perubahan destinasi wisata para wisman apabila terjadi perubahan harga perjalanan wisata, serta karakteristik wisman yang terpengaruh oleh pergerakan nilai tukar. Dari hasil event studies yang dilakukan didapatkan bahwa pergerakan nilai tukar tidak mempengaruhi keputusan wisman untuk berwisata ke Bali mengingat baik pada periode depresiasi ataupun apresiasi, kedatangan wisman ke Bali tetap mengalami trend peningkatan. Sedangkan dari hasil analisis deskriptif hanya sebagian kecil wisman yang menyatakan terpengaruh oleh pergerakan nilai tukar dengan karakteristik seperti jarak tempuh negara asal wisman. Selain itu meskipun biaya berwisata ke Bali mengalami peningkatan, lebih dari 50% responden masih memilih untuk berwisata ke Bali, dan meskipun terjadi perubahan destinasi, lebih dari 30% masih memilih destinasi negara Asia sebagai penggantinya. Didapatkan juga bahwa semakin berumur wisatawan, semakin pergerakan nilai tukar tidak mempengaruhi keputusan mereka untuk berwisata ke Bali.*

**Kata kunci:** pariwisata, nilai tukar, wisatawan mancanegara

**Klasifikasi JEL:** L83, F31, C42

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## INTRODUCTION

Tourism is the main source of Bali's economy. Hotel and food sector that represents tourism contributes for more than 20% of Bali income from 2012 until present. Thus, the performance of tourism industry is very influential to Bali's economy<sup>2</sup>.

Being one of the world's tourist destinations, foreign tourists arrival holds a significant role in improvement of Bali's economy. Statistics of tourists arrival through Ngurah Rai International Airport shows that the number of foreign tourists arrival exceeds the local ones by 36%. Furthermore, the expenditure of foreign tourists that exceeds twice as much as the local ones shows the bigger multiplier effect of foreign tourists arrival on Bali's economy. Hence, the observation on the pattern of foreign tourists visit is important to prevent the decline in the future.

As the demand law suggests, price and relative price of a good are of factors that affect demand. The same goes for tourism sector. The cost of traveling is one of the factors that affect tourists interest in visiting a tourist attraction. The cost of traveling or the price could be represented by the exchange rate that reflects two things, the cost of visiting one tourist attraction and the relative price to other tourist attractions at other countries. The depreciation on local tourism destination currency relative to origin countries currencies would decrease cost of visiting destination. The depreciation on local tourism destination currency relative to other tourism destination countries would decrease price relative to travel to the local tourism destination.

There have been several studies conducted to see the effect of exchange rate fluctuations on a country's tourism sector. Nojwee et al (2012) estimates the effect of real exchange rate fluctuations on the tourism sector and economy using Granger Causality Method in Mauritius. The study shows that contrary to the popular belief, exchange rate does not affect tourists arrival and instead, the tourists arrival affects the exchange rate. Abbas and Ibrahim (2011) examines the impact of several variables to the demand of

tourism sector from foreign tourists. The study shows that Egypt tourism sector is very sensitive to price change. Furthermore, exchange rate volatility also contributes to demand elasticity of tourism sector.

Similarly, this research also uses exchange rate and foreign tourist as the main discussion. The observation is based on the significant appreciation and depreciation of IDR towards USD. This research aims at estimating the change of tourists arrival after IDR appreciation and depreciation, analyzing sensitivity of foreign tourists arrival to price change, and analyzing the destination change should there be a price change. This research also aims at observing foreign tourists characteristics that are sensitive to price change. The result of this research is expected to be able to reveal demand elasticity of foreign tourists and also to be an input for the development of Bali tourism policies in the future.

## LITERATURE REVIEW

### Tourism Demand

In economic term, tourism demand is defined as the amount of tourism goods and services that some people are willing and are able to pay at certain price and certain time. The economic approach used is estimation of tourism demand elasticity shall there be price and other factors' changes (Chaudhary et al., 2007). Just as the demand theory suggests, factors affecting tourism demands are the price of good, other goods' prices, income and taste.

Marshallian demand that explain demand function from maximum utility subject to budget constrain can be used to describe tourism demand. We assume tourist will maximum their utilities under budget constraint.

Marshallian demand equation for tourism demand is as follows:

$$D_{ij} = F(Y_i, P_i, P_j, P_j^s, Z) \dots \dots \dots (1)$$

Where  $D_{ij}$  is tourism demand at  $j$  destination from local tourist country  $i$ ,  $Y_i$  is income of country  $i$ ,  $P_i$  is the price of other goods and services from country  $i$ ,  $P_j$  is the cost of tourism product at destination country,  $P_j^s$  is the cost of tourism product at competitor country and  $z$

<sup>2</sup> GDRP data published by Badan Pusat Statistics (BPS)

is other factors affecting tourism demand. The equations (1) uses homogeneity assumption, thus demand equation can be written as real income and substitution price from other relevant destinations functions. The tourism demand equation shows the role of exchange rate to tourism demand.

Exchange rate not only changes the price but also changes relative price.

### Previous Research

There have been many research conducted to analyze exchange rate effect on tourism demand. Below are some of those:

**Table 1.** Previous Research

No	Titles	Objects	Methods	Conclusion
1	The Relationship Between Exchange Rate, Tourism and Economic Growth: Evidence from Mauritius (Nowjee et al, 2012)	Mauritius tourist destination	Vector Error Correction Model (VECM) dan Pair Wise Granger Causality.	Exchange rate does not influence tourists arrival. Tourists arrival influences exchange rate instead.
2	The Determinants of International Tourism Demand for Egypt: Panel Data Evidence (Abbas and Ibrahim, 2011)	Mesir tourist destination	Panel Data Regression	Egypt's tourism sector is very sensitive to price change. Moreover, exchange rate fluctuation also influences tourism demand elasticity.
3	Research Note: The Exchange Rate, Euro Switch and Tourism Revenue in Greece (Thompson dan Thompson, 2010)	Greece Tourist Destination	Error Correction Model	Greece's tourism demand is inelastic that exchange rate appreciation causes the tourism sector workers' income to soar.
4	Tourism Demand and Exchange Rates in Asian Countries: New Evidence from Copulas Approach (Wang et al, 2008)	Asian Countries	Copula method	There is a negative correlation between foreign tourists arrival and exchange rate. The effect of appreciation is found to be more significant than depreciation.
5	The Drivers of Tourism Demand in the UK (Blake dan Jimenez, 2007)	British Tourist Destination	VECM	Tourism demand is elastic to income but is inelastic to price change.

## RESEARCH METHODS

### Data

This research combines primary data and secondary data. The secondary data are the time series data of IDR exchange rate to USD, foreign tourists arrival statistics, hotel room rate occupation, and other relevant data. The primary data is obtained from survey on foreign tourists. The survey was conducted in two stages. The first one is a quick survey to 300 foreign tourists and the second stage of the survey is a survey on 1000 foreign tourists in main tourist destinations in Bali. The sampling methods for both surveys were non probabilistic sampling. The first survey is an

additional survey consists of fewer respondents aimed at giving an illustration about the effect of exchange rate fluctuations to foreign tourists arrival to Bali. While the second survey is the output of SUPERWISMAN conducted in May 2014 by Bank Indonesia Representative Office, Region III Bali is aimed at estimating foreign tourists characteristics that's affected by exchange rate fluctuations.

### Data Analysis Tool

This research is divided into three parts, event studies, descriptive statistics, and logistic multinomial regression. Event studies as the

first part analysis is stressed at the impact of IDR depreciation on foreign tourists response, represented by room occupancy rates and the number of foreign tourists arrival from January 2011 to March 2014. Event study is a study that observes market's reaction to public information (Jogiyanto, 2000). The breakdown of event studies is as follows:

#### 1. Event Determination

Events that this research are to be based on are IDR appreciation and depreciation.

#### 2. Research Timeline Determination

The research timeline is at IDR appreciation and depreciation period.

#### 3. Sample Determination

Samples used are respondents at the stage 2 of the survey that SUPERWISMAN.

Second part, descriptive analysis in this research is focused at foreign tourists response to exchange rate fluctuations on their traveling behavior and the in-depth analysis about foreign tourists characteristics in regard of exchange rate fluctuations.

The thirds part is inferential analysis to observing foreign tourists characteristics that are sensitive to price change. The analysis based on yes or no question by asking tourist whether exchange rate variation will affect willingness to visit tourist destination.

In order to cover the case of binary dependent variable that reflected in yes or no question, this research is supported with inferential analysis by using logit regression. The probability of exchange rate effect on foreign tourist decision to visit Bali sets as dependent variable and respondents' characteristics are placed as independent variable. The underlying assumption for the dependent variable is that exchange rate affects foreign tourists decision and the alternative assumption is that exchange rate does not affect foreign tourists decision. Therefore, the analysis focuses on the probability of exchange rate affecting foreign tourists decision to visit Bali.

Technically, dependent variable is denoted by 0 if respondents think that exchange rate does not affect their traveling decision and is denoted by 1 if exchange rate affects their

traveling decision. Hence, 0 (exchange rate does not affect tourists traveling decision) belongs to reference group. The independent variables are tourism characteristics as control variables. This model estimates the characteristics of travelers who are sensitive to changes in exchange rates. Specification for multinomial logistic regression is as follows (Gujarati, 1995):

$$z_1(x) = \ln \left( \frac{\Pr(y = 1|x)}{\Pr(y = 0|x)} \right) = \beta_0 + \beta_1 x_1 + \dots + \beta_p x_p \quad (2)$$

Equation 1 is logit function for  $y = 1$  relative to  $y = 0$ . This research will only estimate one multinomial logit model as follows:

$$\text{Prob}(\text{impact}=1) = f(\text{Age, Spend, Frek, mature}) \quad (3)$$

Where:

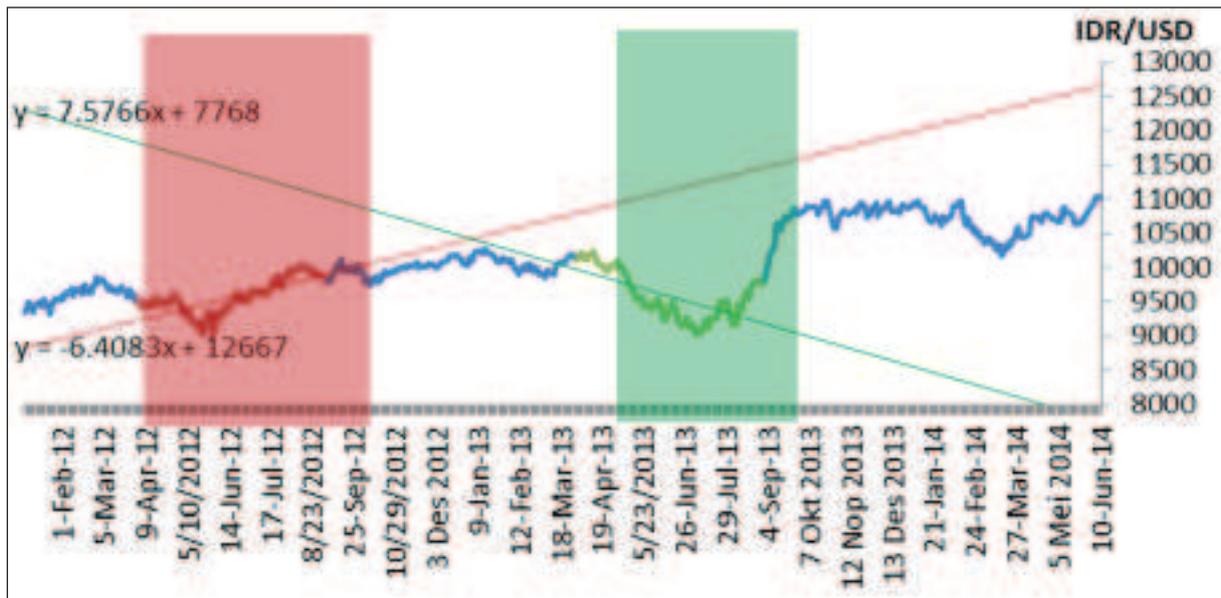
Prob(impact=1)	: Probability of exchange rate affecting foreign tourists behavior to visit Bali.
Age	: Respondents' age (in year).
Frek	: Frequency of respondents' visit to Bali in the past 3 years.
Mature age	: Dummy variable of productive respondents (over 21 year-old).
Spend	: Respondents' expenditure at Bali.

The software used for the regression is STATA. The demerit of this research is that the respondents not answering is assumed to be affected by exchange rate fluctuations.

## RESULTS AND DISCUSSION

### Event Studies Output

The initial stage of event study is by determining the research timeline. This stage is started by examining depreciation and appreciation period of IDR towards USD. The consideration that Indonesia has certain cycles in certain months makes it necessary to compare the same months in different years. Thus, authors choose time period of April to August 2012 represents depreciation period (red-shaded area) and time period of April to August 2013 which represents appreciation period (green-shaded) as research timeline period (Figure 1).



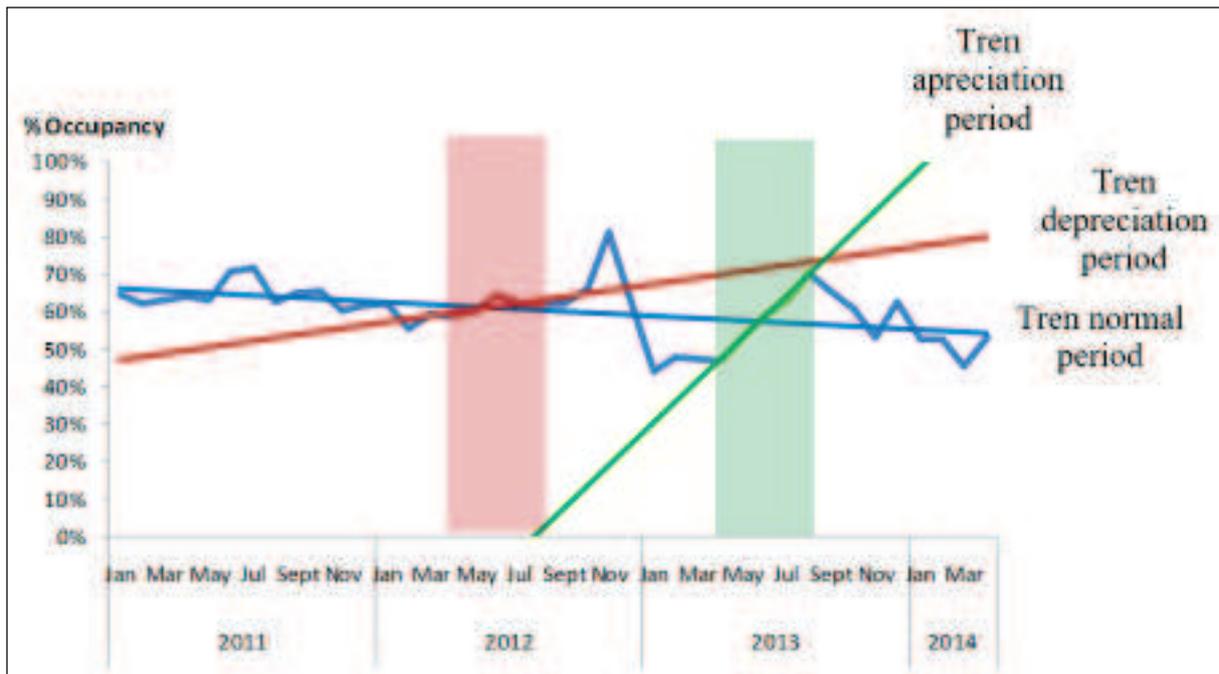
Source: Calculated from Bank Indonesia (2016)  
**Figure 1.** Depreciation and Appreciation Periods

After determining the observation timeline period, the next step is analyzing tourists response to exchange rate fluctuations using two indicators. The two are room occupancy rate and foreign tourists arrival. Room occupancy rate is used as an indicator as it reveals the number of tourists arrival to Bali. Figure 2 shows a shift of trend from the normal period (blue trend line), in which the trend is denoted by negative slope to positive slope at IDR depreciation period (red trend line). This shows that depreciation period makes room rates relatively cheaper for foreign tourists that there is a rise in room occupancy rate. Meanwhile, at appreciation period, the effect is a sharp increase in room occupancy rate. This reveals the local tourists contribution to room occupancy rate as the exchange rate appreciation causes room rates to get relatively cheaper for local tourists. This causes faster rise in room occupancy rate at normal period (blue trend line, Figure 2) than at depreciation period in the previous year. Thus, room occupancy rate is considered to be insufficient to illustrate foreign tourists response to exchange rate fluctuations.

Meanwhile, foreign tourists arrival can illustrate the response better than the room occupancy rate does. This fact still applies

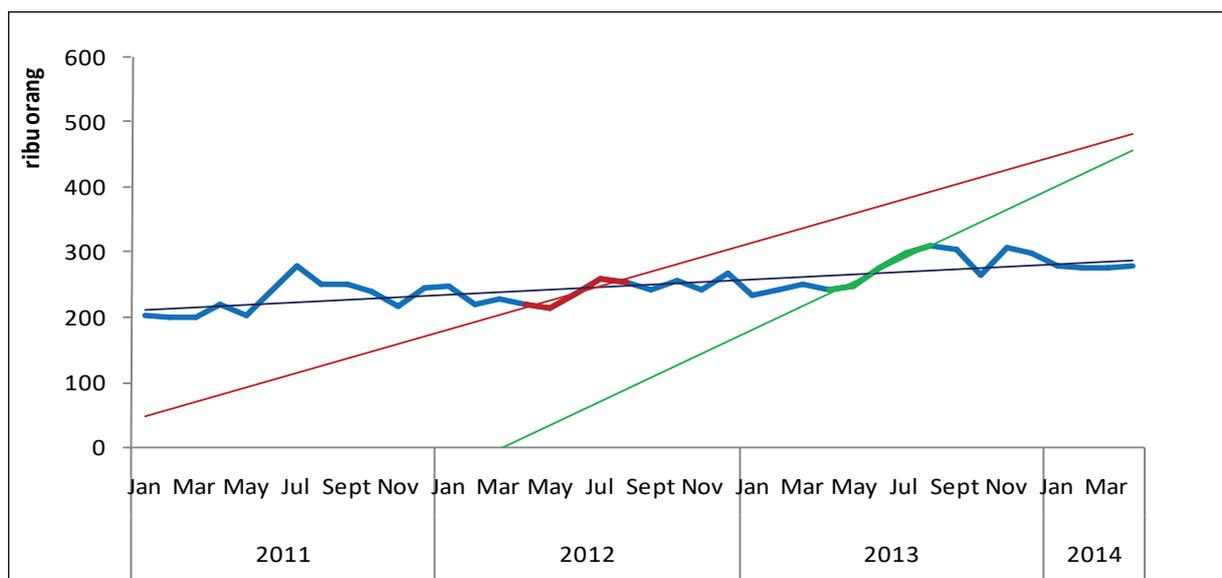
although in Figure 3 we can see a rising trend from normal period (blue trend line) be it at depreciation or at appreciation period. The rise of trend at depreciation period shows that depreciation causes traveling trip to Bali is relatively cheaper for foreign tourists and therefore increases foreign tourists arrival to Bali. Yet, the same response also applies for appreciation period. The foreign tourists arrival rise trend is steeper than it does at depreciation period although it is not as steep as what room occupancy rate indicator suggests.

Event studies output shows that exchange rate does not affect foreign tourists decision to travel to Bali. This is due to the similar slope of trend line of both appreciation and depreciation period. This shows that there is no difference in the rate of tourist arrivals at the time of appreciation or currency depreciation. The same trend shift at both periods also shows that there are other factors that cause tourists arrival to soar. This is presumably because of traveling cost to Bali is considered to be cheap by tourists (to be confirmed later) that IDR movement at observation period is relatively not steep and is not affecting tourists interest to go to Bali. Further validation of these phenomena is to be observed at the next stage.



Source: Calculated from Tourism Office of Bali Province (2016a)

**Figure 2.** Room Occupancy Rate in Bali



Source: Calculated from Tourism Office of Bali Province (2016b)

**Figure 3.** Foreign Tourists Arrival Trend in Bali

### Descriptive Analysis Output

Descriptive analysis used in this research shows the proportion of tourists that are affected by exchange rate fluctuations in deciding to travel to Bali and their characteristics.

#### 1. Respondents' Characteristics

Besides secondary data, this research also uses two sources of primary data that are obtained from survey. The first stage of survey is a brief survey to 301 respondents of foreign tourists visiting Bali. The second stage of the survey is an output of SUPERWISMAN done by Bank

Indonesia Representative Office Region III, Bali. There are total of 1031 foreign tourists, 519 of those are female and the rest are male. The average age of the respondents is 35.5 year-old with the oldest respondent is 87 year-old and the youngest is 19 year-old. Nearly all of the respondents (971 respondents) belong to productive age (15-64 year-old). The country of origin is divided into 7 regions, ASEAN, Non-ASEAN Asia Countries, Middle East, Europe, America, Oceania, and Africa. Non-ASEAN Asia Countries takes up the biggest cake with 31% tourists, followed by Oceania with 30%.

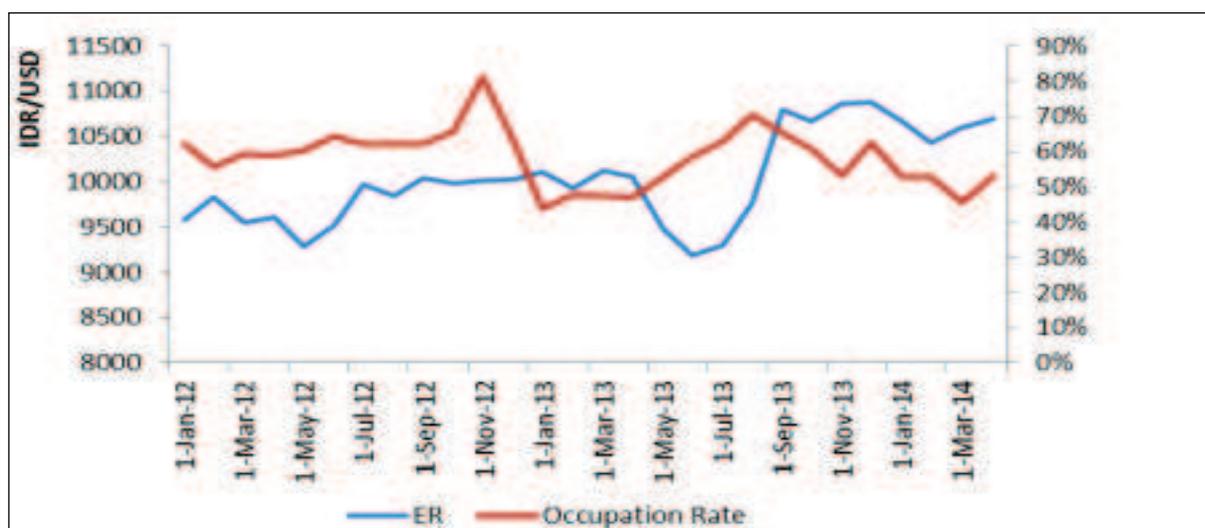
## 2. Impact of Exchange Rate on Tourists Decision to Visit Bali

Descriptive Statistics is focused on the impact of exchange rate movement on foreign tourists behavior. Despite the various country of origin of foreign tourists, this research uses IDR to USD exchange rate because USD is exchange rate that is used globally. Similar with the previous event studies, room occupancy rate and foreign tourists arrival are indicators used to illustrate foreign tourists behavior. Theoretically, exchange rate and room occupancy rate have the same movement due to the depreciation of IDR that is supposed to make traveling cost to Bali to decline and thus increases foreign tourists arrival.

Figure 4 conveys that the movement of room occupancy rate and exchange rate basically are at the same direction, yet, from period of January to September 2013, the contrary happens. This is in line with event studies result that shows room occupancy rate at depreciation and appreciation get in the same direction although the rise is bigger at appreciation period. The condition shows that room occupancy rate shows not only foreign tourists behavior to exchange rate volatility but also local tourists.

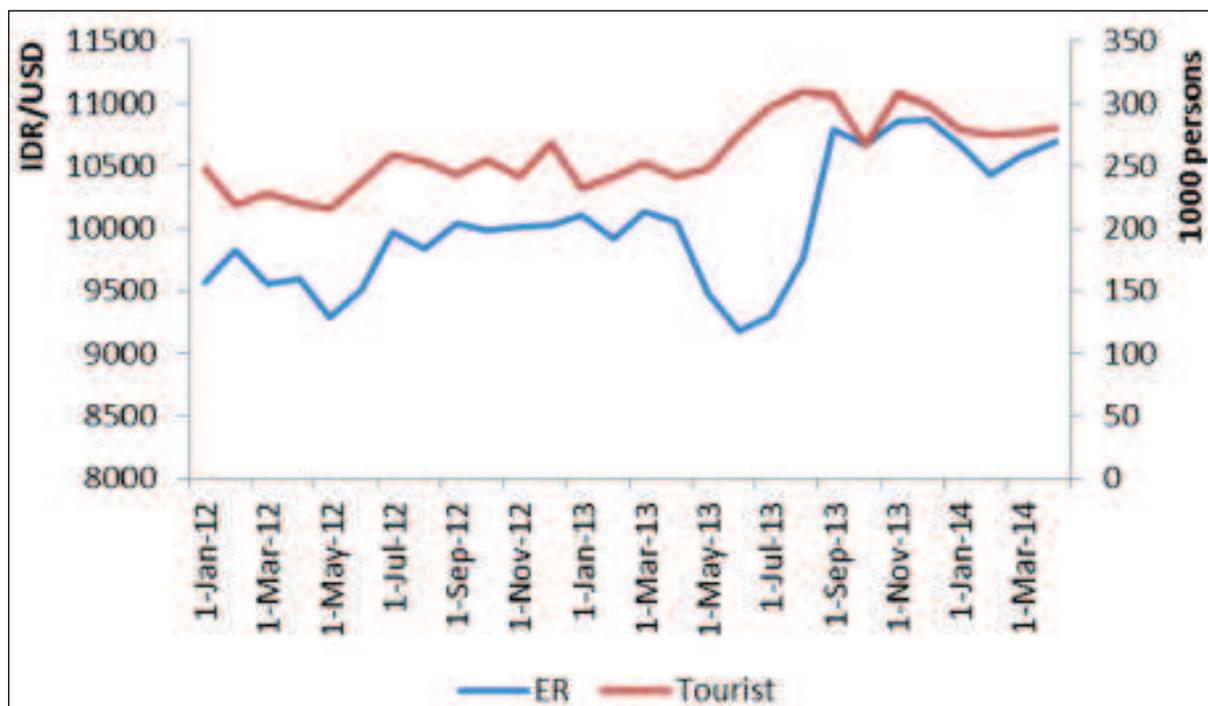
Foreign tourists arrival indicator in Figure 5 shows that exchange rate volatility and foreign tourists arrival go to the same direction in observation period except for May-September 2013 period. Contrary to the event studies result, the foreign tourists arrival goes to the same direction with exchange rate movement. At depreciation period, there is a decline in foreign tourists arrival, vice versa. This shows that foreign tourists are sensitive to exchange rate movement but it is still insignificant.

At the first stage of survey, it is revealed that 69.1% of respondents consider that traveling cost to Bali is cheap, less than 3% states that traveling cost to Bali is expensive and 30% states that traveling cost to Bali is normal. This condition supports the fact that foreign tourists decisions to visit Bali are not affected by exchange rate fluctuations.



Source: Calculated from Bank Indonesia (2016) and Tourism Office of Bali Province (2016a)

Figure 4. Exchange Rate and Room Occupation Rate in Bali (2012-2014)



Source: Calculated from Bank Indonesia (2016) and Tourism Office of Bali Province (2016b)

**Figure 5. Exchange Rate and Number of Tourist Arrival in Bali (2012-2014)**

Furthermore, over 50% of respondents think that Bali is still going to be their travel destination despite the price increase. This might be caused by Bali's strong attraction to tourists, hence the decision stillness despite the cost increase. It is also revealed that although there is a change of tourists destination, most respondents (32.2%) will reroute to other ASEAN countries. This is possible due to the fact that the similar characteristics of ASEAN countries are apparent thus enable them to be substitutions to Bali.

It is also found that majority of respondents considers exchange rate fluctuations to not have any effect on their tourism decision for both tourists at destinations abroad and Bali. Around 67.44% think that exchange rate does not affect their decision to travel abroad, 78% of respondents think that exchange rate movement does not affect their decision to travel to Bali. The survey also conveys that 48.5% of respondents state that they will cancel their travel to Bali should there be any increase in cost by 50%. Another 27.7% state that they will cancel their trip

to Bali if there is traveling cost to Bali increases by 200%, 16.6% say that they will cancel the trip if the cost of traveling increases by 20%. The rest say that they will cancel their trip plan if there is price increase by 300%.

The second survey reveals that the majority of respondents (85%) are not affected by exchange rate fluctuations in deciding whether to travel to Bali. Meanwhile, the ones affected accounts for 8% of the respondents and the remaining 7% do not give any answer. This survey shows that foreign tourists tend to not consider exchange rate fluctuations as one factor that affects their travel decision, this shows the preference that exchange rate fluctuations will not significantly affect their travel decision.

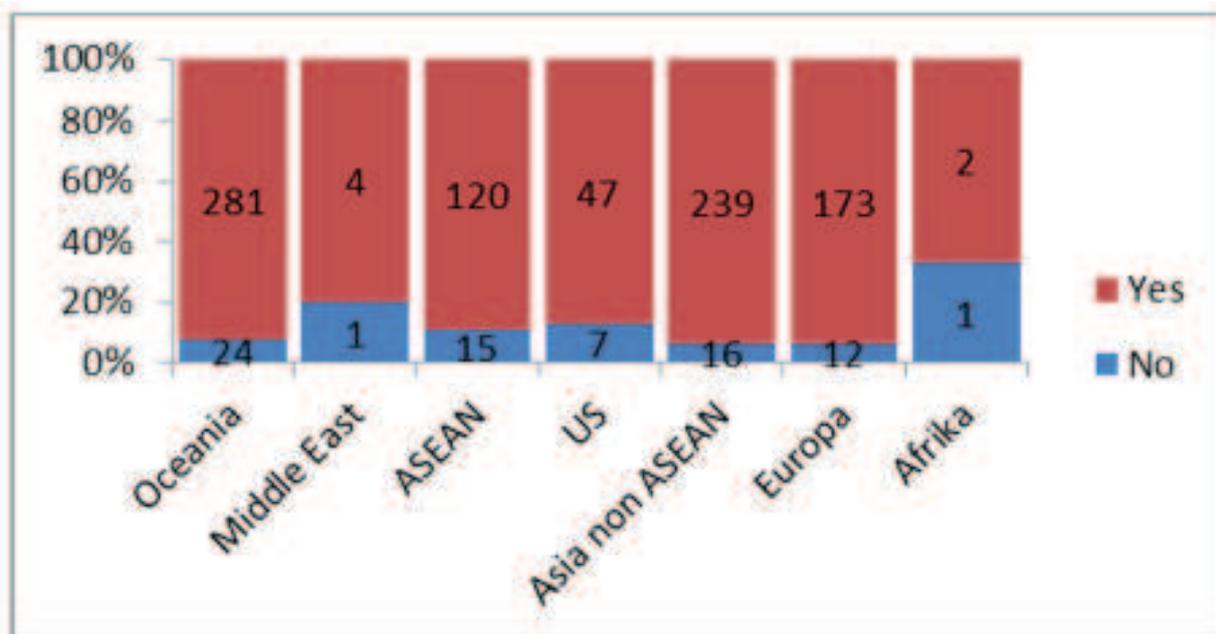
Aggregately, both surveys show that with as the number of respondent increases, the number of tourists that are affected by exchange rate declines. This finding is similar to a study by Stephenson, Vita, Walton, and Wang (2007) on the study about the impact of exchange rate fluctuations on tourists arrival to New Zealand.

Furthermore, the respondents affected by exchange rate are classified by their country of origin. It is found that 32% of respondents are from Oceania, including Australia. The second biggest is non-ASEAN Asian countries (21%) and ASEAN countries (20%), followed by Europe, America, Africa, and Middle East. The fact that majority of respondents that are affected by exchange rate are from Oceania is not surprising as Australia belongs to this group.

In regard of occupation of respondents who are affected by exchange rate, it is revealed that respondents with professional jobs are those who are the most sensitive with exchange rate movement (34%). This is because professionals have more options of travel destination so that the change in cost of travel to Bali is responded by rerouting to easier and more accessible travel destinations. The second biggest occupations that are sensitive to exchange rate are clerics/technicians/sales (21%). Just like the professionals, these occupations have more alternatives to travel destinations. From type of travel mate, respondents who travel with family are the most sensitive ones compared to ones travel with friends, alone and in group. This is because the ones travel with family spends more than the other groups so that they are more sensitive to exchange rate fluctuations.

To examine the deeper comparison, the tourists are classified by their country of origin (Figure 6). The figure shows that Oceania is the region which contributes the majority of

tourists affected by exchange rate. In general, the proportion for each country is very small (Figure 6 in red). Yet, examining the proportion of tourists affected by exchange rate based on their country of origin, Africa is one region that has the biggest tourist proportion affected by exchange rate. One thing that needs to be taken into consideration is that sample of African tourist is only three so that the conclusion does not validate the African tourists preference. The same goes for sample from Middle East. Therefore, sample of America region in which there are 7 out of 54 tourists that are affected by exchange rate is chosen to be one region with the biggest proportion of tourist affected by exchange rate. It is followed by ASEAN, Australia, non-ASEAN Asian countries, and Europe. The result of America being the region which has the biggest proportion of tourist affected by exchange rate might be caused by the recovering economic of Americans and caused by the unavailability of direct flight from USA to Bali, causing them to take more time and money, thus the sensitivity. This is in line with Hinch et al. (2005) that states spatial barrier like distance becomes one's limitation to travel. Besides, the theory of distance decays state that consumers determine their travel destination not only because of the travel package price, but also because of the cost of travel to access that particular travel package (Losch, 1954). This theory also estimates that demand will peak at certain distance with the shortest relative distance to the market source and then declines exponentially as the distance rises (McKercher & Lew, 2003).



Source: Authors' calculation

Figure 6. Respondents' Response based on Country of Origin

### Logit Analysis Output

Estimates using multinomial logistic regression are used to examine factors affecting the probability of respondents' traveling behavior affected by exchange rate. It shows that there is only one variable that affects the probability of respondents' traveling behavior affected by exchange rate. This variable affects the probability of respondents' traveling behavior affected by exchange rate significantly with alpha of 5% and coefficient of -0.0223. The negative coefficient shows that the older the tourists, the less probability of exchange rate affecting their

travel decision to Bali. The indication is that as they age, the tourists have more income to spend and thus makes exchange rate less relevant to their travel decision to Bali. This conclusion is supported by Lise and Tol (2002). They found that age significantly negatively affect tourism demand in Netherlands. Sniadek (2006) also found that as in the observation of the best age to take care of humans' health, senior age population is found to need tourism to accommodate that goal. Meanwhile, the other factors do not significantly affect the probability of exchange rate affecting tourists travel behavior.

Table 2. Logistic Regression Estimates

Dependent Variable	Independent Variable	Coefficient	Std. Error	Sig.
Prob (tourist feel affected by exchange rate)	Age	-0.0223	0.0092	0.0150
	Spend	0.0000	0.0001	0.4280
	Frek	-0.0580	0.0642	0.3670
	Mature	-0.1075	0.4147	0.7950
	Constant	-0.7497	0.4208	0.0750

Source: Authors' calculation

## Managerial Implication

The study results provided insight for decision makers both in business and government to increase tourism arrival during exchange rate fluctuations. For the government: First, although the exchange rate movement does not affect the travel decision to Bali, it is important to continue in managing tourist destinations in order to keep the foreign tourists arrival potential to rise. Second, responding to the fact that exchange rate fluctuation is relevant in reducing interest to travel of elderly tourists, the policy makers are expected to target the senior citizen tourists by adding more facilities that are more appealing for this tourist group (spa and rehabilitation center). For the business, it is important to pay more attention to those affected by exchange rate like American tourists. They have some limitations like time and cost to travel to Bali and thus make exchange rate fluctuation matter on their decision to travel to Bali. The need of the ease of access from and to Bali to accommodate American tourists has to be the attention of the policy maker.

## CONCLUSION

Event studies result shows that both appreciation and depreciation period of IDR show the same trend of the rise of room occupancy rate. The rise is more distinct at the period of appreciation. In other words, the rise of room rate does not discourage tourists demand of lodging in Bali. Yet, the phenomenon needs to be examined further because room occupancy rate does not only reflect the behavior of foreign tourists, but also the local ones'. Therefore, it can be concluded that the steep shift on trend at the appreciation period is caused by local tourists demand of lodging. The fact shows the drawback of using room occupancy rate as a reflection of the foreign tourists behavior. In line with room occupancy rate, foreign tourists arrival shows the same trend be it at depreciation or appreciation period. The rise trend acceleration of foreign tourists arrival during appreciation is also found. Therefore, based on event studies it can be concluded that tourist does not respond to exchange rate in regard of their traveling behavior.

This research also finds that although there are respondents that consider exchange rate affects

their travel decision to Bali, it is not significant in the comparison of the whole respondent (21.93% at the 1<sup>st</sup> stage of survey and 8% at the 2<sup>nd</sup> stage of survey).

From the two stages of survey it is revealed that the more respondents taken, the less proportion of tourists affected by exchange rate fluctuations. This is in line with a research done by Stephenson, Vita, Walton and Wang (2007) to examine the impact of exchange rate on tourists arrival in New Zealand. This in other word can be concluded with aggregately, exchange rate does not affect foreign tourists behavior. Nevertheless, for tourists who need more sacrifice (money and time) to get to Bali such as Americans, the probability of exchange rate affecting their travel decision to Bali is bigger. The unavailability of direct flight to Bali from USA makes it very time and cost consuming for American tourists. It is also found that more than 50% respondents think that although there is an increase of traveling cost to Bali, they will still go to Bali. If there is a reroute, most of the respondents (32.2%), still choose other countries in the Southeast Asia. This is because the countries have similar characteristics that they can be substitutes to each other.

This research also reveals that there is only one variable that affects tourists behavior on their decision of visiting Bali, age. The older the tourists, the less probability of exchange rate affect their decision to visit Bali. This is probably due to the bigger income they get as they age. Meanwhile at the same time, Bali develop retirement tourism program to attract elderly tourists, so they can stay longer in Bali.

## REFERENCES

- Abbas, M., & Ali-Ibrahim, M.A. (2011). The Determinants of International Tourism Demand for Egypt: Panel Data Evidence. *European Journal of Economics Finance and Administrative Sciences*, 30, 50-58.
- Badan Pusat Statistik. *Bali in Figures*, several years.
- Bank Indonesia. (2016). *2012-2014 Exchange Rate - Bank Indonesia*. Retrieved from <http://www.bi.go.id/id/moneter/informasi-kurs/transaksi-bi/Default.aspx>.

- Blake, A., & Cortes-Jimenez, I. (2007). *The Drivers of Tourism Demand*, Report for the Department for Culture, Media and Sport.
- Chaudhary, M., Kamra, K. K., Boora, S. S., Kumar, R. B., Chand, M., & Taxak, R. H. (Eds.). (2007). *Tourism Development: Impacts and Strategies*. New Delhi: Vedams eBooks (P) Ltd.
- Gujarati, Damodar, N. (1995). *Basic Econometrics, 3rd edition*. McGraw-Hill, Inc.
- Hinch, T., Jackson, E.L., Hudson, S. & Walker, G. (2005). Leisure Constraint Theory and Sport Tourism. *Sport in Society*, 8(2), 142-163.
- Jogiyanto, H. M. 2000. *Teori Portofolio dan Analisis Investasi, edisi kedua*. Yogyakarta: BPFE Universitas Gadjah Mada.
- Lise, W., Tol. R.S. (2002). Impact of Climate on Tourist Demand. *Climatic Change*, 55(4), 429–49.
- Losch, A. (1954). *The Economics of Location*. New Haven: Yale University Press.
- McKercher, B., & Lew, A. (2003). Distance Decay and The Impact of Effective Tourism Exclusions Zones on International Travel Flows. *Journal of Travel Research*, 42(2), 159-165.
- Nowjee, A., Poloodoo, V., Lamport, M., Padachi, K., & D. Ramdhony (2012). *The Relationship between Exchange Rate, Tourism and Economic Growth: Evidence from Mauritius*. Conference Proceedings from the International Conference on International Trade and Investment (ICITI) 2012.
- Sniadek, J. (2006). Age of Seniors - A Challenge for Tourism and Leisure Industry. *Studies in Physical Culture and Tourism*, 103-105.
- Stephenson, J., Vita, S., Walton, M., & Wang, A. (2007). *Exchange Rate and Tourism Relationship in New Zealand*. Report to Ministry of Tourism. NZIER.
- Tourism Office of Bali Province (Dinas Pariwisata Provinsi Bali). (2016a). *Prosentase Tingkat Hunian Kamar Hotel di Bali: Th. 2012-2014*. Retrieved from <http://www.disparda.baliprov.go.id/id/Statistik3>.
- Tourism Office of Bali Province (Dinas Pariwisata Provinsi Bali). (2016b). *Distribusi Kedatangan Wisatawan ke Bali Setiap Bulan*. Retrieved from <http://www.disparda.baliprov.go.id/id/Statistik3>.
- Thompson, A., and Thompson, H. (2010). The Exchange Rate, Euro Switch and Tourism Revenue in Greece. *Tourism Economics*, 16(3), 773-778.
- Wang, H. C., Chen, N. H., Lu, C. L., & Hwang, T. C. (2008). Tourism Demand and Exchange Rates in Asian Countries: New Evidence from Copulas Approach. 2008 Third International Conference on Convergence and Hybrid Information Technology (Vol. 2, pp.1188–1193) Busan: IEEE.