

The Effects of The Post-2013 Socio-Political Turmoil on International Tourism Demand in Emerging Economies: An Oaxaca-Blinder Decomposition Approach

Can Erbil¹

Deniz Karaođlan²

Çađlar Yurtseven³

Abstract

This paper examines the differentiating effects of increasing socio-political risk on international tourism in emerging countries after 2013. In the recent high-risk period, the world faces not only financial but also socio-political challenges. The study demonstrates the effects of specific socio-political based uncertainty on tourism demand by using Oaxaca-Blinder decomposition analysis. This method provides the premise place of this study in the literature. The findings suggest that the increase in socio-political uncertainty in the post-2013 period acts as a decelerator in the number of tourist arrivals in emerging countries between 2013 and 2017. Therefore, although the incentives in the global market dramatically expand in the post-2013 period, the increasing socio-politic uncertainty world-wide has a large-scale negative impact on tourism demand in emerging countries.

JEL Codes: Z3, Z32

Keywords: Emerging countries, tourism, uncertainty, sociopolitical issues, Oaxaca-Blinder decomposition, tourism demand.

¹ Department of Economics, Boston College, MA, USA. E-mail: erbilc@bc.edu, ORCID: 0000-0002-2206-5230

² Gebze Technical University, Gebze, Kocaeli, Turkey. E-mail: hdyurtseven@gtu.edu.tr, ORCID: 0000-0002-8000-8613

³ Department of Economics, Bahçeşehir University, Istanbul, Turkey. E-mail: cayurtseven@yahoo.com, ORCID: 0000-0002-8397-6740

2013 Sonrası Sosyo-Politik Kargaşanın Uluslararası Turizm Talebi Üzerindeki Gelişmekte Olan Ekonomilere Etkileri: Bir Oaxaca-Blinder Ayrışma Yaklaşımı

Özet

Bu makale, 2013’de sonra artan sosyo-politik riskin uluslararası turizm üzerindeki farklılaştırıcı etkilerini geliştirmekte olan ülkeler bazında incelemektedir. Bu risk döneminde dünya sadece finansal değil aynı zamanda sosyo-politik sorunlarla da karşı karşıya kalmıştır. Çalışma, sosyo-politik temelli belirsizliğin turizm talebi üzerindeki etkilerini Oaxaca-Blinder ayrıştırma analizini kullanarak ortaya koymaktadır. Bu yöntem, çalışmanın literatürdeki öncül yerini sağlamaktadır. Bulgular, 2013 sonrası dönemde sosyopolitik belirsizlik düzeyindeki artışın, 2013-2017 yılları arasında geliştirmekte olan ülkelere gelen turist sayısında yavaşlayıcı rol oynadığını göstermektedir. Dolayısıyla, 2013 sonrası dönemde turizm talebindeki artmayı destekleyici onca teşviğe rağmen dünya çapında artan sosyo-politik belirsizliğin, geliştirmekte olan ülkelerdeki turizm talebini olumsuz etkilediği sonucuna ulaşılmıştır.

JEL Sınıflandırması: Z3, Z32

Anahtar Kelimeler: Geliştirmekte olan ülkeler, turizm, belirsizlik, sosyopolitik meseleler, Oaxaca-Blinder ayrışması, turizm talebi.

1. Introduction

Socio-politic factors such as security, poverty, national wealth, income inequality, political conflicts and related risks have important impact on consumer preferences for tourism activity. Socio-political risks influence individuals' general perception of such leisure activities. Previous studies show that consumers avoid socio-political risk when they plan to travel abroad (Buda, 2015; Fennell and Ebert, 2004; Quintal Lee and Soutar, 2010; Yang and Nair, 2014).

Uncertainty in the world increases due to financial and socio-political reasons. The world economy witnessed two major periods of uncertainty between 2000 and 2017 (Beck, 2018, UN ESA, 2020). The first one was the global financial crisis that occur between 2007 and 2009, when both developed and emerging countries experienced high levels of uncertainty. Then, after a short period of relative stability between 2010 and 2012, starting from 2013, uncertainty raised in emerging market economies this time due to socio-political shocks. The examples of those events can be listed as follows: Eurozone crises, U.S. fiscal fights, China leadership transition, European immigration crisis, Brexit referendum, Trump election, political turmoil in Brazil, France and South Korea. The period, which covers the listed events is referred to as high a socio-political risk period in the related literature (Brecher, 2019, Rosenau 2018; Blanton and Kegley, 2020). Investigating the impacts of these events on tourism demand separately is important. The main objective of this paper is to differentiate between the effects of the socio-political risks and the impact of financial risks on tourism demand. For this purpose, the paper hypothesizes that the turmoil in the socio-political arena from 2013 onwards has differentiating effects on tourism demand compared to the financial based uncertainty that occurred between 2007 and 2009.

The studies which examine the effects of uncertainty on tourism demand can be grouped in two categories according to the methods they use. The first group of articles use risk index values such as Economic Policy Uncertainty Index (EPU), Global Policy Uncertainty Index (GPU) and Geopolitical Risk Index (GRI). There are studies in this group which claim to measure the effects of sociopolitical risks on tourism demand to a certain extent. (See for instance, Demir and Gözgör, 2018; Balli, et.al., 2019; Demir, et al., 2019; Neacşu et. al, 2018; Saint Akadiri, et. al, 2020; Tiwari, et. al, 2019.). These papers study the impact of uncertainty,

which may be due to financial and/or socio-political reasons, on tourism demand. Although all these indices give an idea about the increasing level of uncertainty in the world, they do not allow specialization on the impact of socio-political risk on tourism demand due to the establishment of the indexes.

The second group of studies in the literature focus on a single socio-politic factor rather than an overall increase in the socio-political risk (See for instance; Santana-Gallego, et. al., 2016); Saha et al., 2017); Lanouar and Goaid, 2019.). Those studies measure the effect of specific event on tourism demand separately for two periods (e.g. before and after the event).

This paper contributes to the literature mainly with its methodology. It is the first study that examines the differentiated effects of the socio-political risk on tourism demand by implementing Oaxaca-Blinder decomposition analysis. The decomposition analysis allows the researcher to understand whether the effects of socio-politic based uncertainties are as influential as financial based uncertainties on tourism demand. In fact, examining the 2004-2009 and 2010-2017 periods separately allows us to see whether deterioration in socio-political risk level has a negative impact on tourism demand. Therefore, decomposition analysis is the best methodology to conduct this research.

Our results show that there is an increase in tourism demand both in the 2007-2009 and 2013-2017 period despite financial and socio-political risks. However, decomposition results suggest that an unexplained part of variation in tourism demand is slightly lower in the 2013-2017 period, which implies that increase in socio-political risks have negative effects on tourism demand. We also conclude that the negative effects of socio-political risks dominate the positive effects of tourism incentives that appear in the post-2013 period. We cannot examine the period after 2017 due to data limitation.

The rest of the paper is organized as follows: Section 2 presents data and descriptive statistics. Section 3 discusses the methodology. Section 4 presents empirical results. Finally, Section 5 concludes.

2. Data and Descriptive Statistics

In the study, we first form two groups of countries, namely, *Destination Countries* and *Origin Countries*. The destination countries are: Bulgaria, Croatia, Czech Republic, Hungary, Indonesia, Malaysia, Poland, South Africa and Turkey. The paper considers these countries for various reasons. First, all of these countries are emerging economies and tourism income is an important component of the country's gross domestic product (GDP). For instance, by the end of 2018, the ratio of tourism income to GDP is 3.8% in Turkey (TURSAB, 2020). Second, all these countries attract many tourists with their notable natural resources such as their coasts, and history.

Next, the origin countries in this study are as follows: Germany, the United Kingdom (UK), the Netherlands, the USA, Sweden, India, China, South Korea, Israel, Japan, Canada, France, Saudi Arabia and Switzerland. The number of tourists coming from origin countries to destination countries constitutes an important part of the total number of incoming tourists to the destination countries. For example, in 2016 the origin countries listed above constitute 55% of the total number of incoming tourists to one of our destination countries, namely, Hungary. It is also important to note that the origin countries include both high-income developed countries (e.g. Germany) and middle-income developing but highly populated countries (e.g. India).

The dependent variable and the control variables in the empirical analysis are selected following the meta-analysis of Lim (1997)² and Peng et. al (2014). The dependent variable is the number of tourist arrivals, which acts as a proxy for tourism demand in destination country. The data for the number of tourist arrivals from the origin countries are taken from the World Tourism Organization (UNWTO) database. The financial control variables are the origin's country's Gross Domestic Product (GDP) per capita (in constant US dollars), transportation cost of travelling from origin country to destination country, relative price index and exchange rate between two countries. Transportation costs between two countries are calculated as the multiplication of origins country's distance to destination country and average gasoline prices

² Lim (1997) presents the variables that can be used in tourism demand estimations scientifically by performing a meta-analysis with over 100 papers in his study. The article has more than 1000 citations, 300 of which are in the last 4 years.

in origin country. The empirical analysis takes the ratio between relative price index and exchange rate into account to avoid potential biases regarding the reverse movements of relative price and exchange rate. All variables are used in logarithmic terms to estimate the linear form of tourism demand. Macro-level variables are collected from the World Bank (WB) database. Distance data are taken from European Commission Distance Calculator and gasoline prices data are taken from The German Agency for International Cooperation. In the end, a strongly balanced panel data set, which consists of 1,721 observations, is established. We provide descriptive statistics of our data in Table 1 and in Table 2.

Table 1. Mean Number of Tourist Visits (in logarithmic terms)

Destination Country	Mean Number of Tourist Visits between 2004-2006	Mean Number of Tourist Visits between 2007-2009	p-value	Mean Number of Tourist Visits between 2010-2012	Mean Number of Tourist Visits between 2013-2017	p-value
Bulgaria	10.14	10.33	0.6785	10.36	10.64	0.4503
Croatia	11.31	11.51	0.5801	11.79	12.39	0.0105
Czech Republic	11.43	11.52	0.7754	11.71	12.06	0.1011
Hungary	11.04	11.10	0.8460	11.29	11.63	0.0709
Indonesia	11.03	11.18	0.6839	11.44	11.82	0.2573
Malaysia	10.72	11.23	0.3590	11.39	11.47	0.8864
Poland	11.30	11.53	0.6590	11.65	12.18	0.1802
S. Africa	10.86	10.97	0.6843	11.13	11.25	0.5899
Turkey	12.35	12.67	0.3111	12.80	12.91	0.6322
Total	11.13	11.34	0.1338	11.50	11.81	0.0076

Source: UNWTO data set, 2004-2017

Note: $p < 0.05$ indicates that the difference between the means of tourism demand is significant at 5% level of significance.

Table 1 suggests that for each destination country, the number of tourist arrivals increases in the period when the global financial crisis (2007-2009) occurred. However, the increase in tourism demand is not significant in either of those countries. In addition, Table 1 shows that tourism demand rises in the post-2013 period in each destination country as well. However, calculated p-values suggest that the rise in tourism demand is only significant for Croatia, Czech Republic and Hungary among the destination countries we consider. Hence, in general there is

a rising trend in tourism demand to the emerging countries over time despite financial and socio-political risks.

Table 2. Descriptive Statistics on Control Variables (in logarithmic terms)

Variable	Mean Value: Period:2004- 2006	Mean Value: Period:2007- 2009	p- value	Mean Value: Period:2010- 2012	Mean Value: Period:2013- 2017	p- value
GDP per capita	10.11	10.18	0.4288	10.22	10.30	0.2531
Transportation Cost	8.36	8.42	0.4382	8.67	8.53	0.0412
Relative Price index	-0.12	-0.03	0.0000	0.01	0.06	0.0000
Exchange Rate	1.19	1.18	0.9777	1.24	1.39	0.4910
Number of Observations	368	369		369	615	

Source: Authors' own established data set derived from WDI, European Commission Distance Calculator and The German Agency for International Cooperation

Note: $p < 0.05$ indicates that the difference between the means of tourism demand is significant at 5% level of significance.

Table 2 suggests that GDP per capita shows an increasing trend over time in the origin countries. However, the increase is not significant. We observe that transportation cost significantly decreases in the post-2013 period, due to decrease in gasoline prices in the origin countries. In addition, relative price index between destination and origin country significantly raises over time and after 2013, the gap between the price indices increases even more which implies higher inflation rates in destination countries in the post-2013 period. We also observe that exchange rate between destination and origin country increases in the post-2013 period, which implies depreciation in destination country's currency relative to origin country's currency. The insignificance of the difference between the general exchange rate in pre-2013 and post-2013 periods can be attributed to the design of the countries in our data set. In other words, the origin countries include not only high-income developed countries but also lower-income emerging countries such as India. For instance, Croatia had a higher GDP (\$13,294.51) per capita than India (\$1,939.61) in 2017. However, India is referred to as origin; and Croatia is referred as destination country in this study.

3. Methodology

We use Oaxaca-Blinder decomposition analysis to examine the differentiating effect of the post-2013 period on tourism demand. To our knowledge, this study is the first that uses linear decomposition methods to measure the change in tourism demand over time. The decomposition technique was first proposed by Blinder (1973) and Oaxaca (1973) and it is used to investigate the differences between mean outcomes of the two different groups. Since, the Oaxaca-Blinder decomposition method was first implemented to measure the wage differential between race or sex, previous studies utilizing this methodology are generally implemented by using cross-section, micro-data sets. However, recently, the validity of the methodology is also shown in the use of aggregate time series data (See for instance, Wu et al. (2014)) and panel data (See for instance, Bezu et al. (2012)).

Oaxaca-Blinder decomposition analysis first compares the tourism demand in destination countries between 2004 and 2006, namely the *pre-crisis period*, with 2007 and 2009, namely the *global crisis period*. The analysis allows the researcher to see the magnitude of the change in financial controls' contribution to variation in the tourism demand between the two periods. In other words, *the explained part* of the variation in tourism demand between the two periods is the result of the change in financial controls over time. The *unexplained part (or non-financially explained part)* of the variation in tourism demand is due to the unobservable factors (namely, non-financial factors) such as individuals' preferences, change in market structure due to technological improvement and country specific socio-politic risk factors that cannot be measured quantitatively. Then, the same analysis is replicated to compare the tourism demand in the *low uncertainty period* (2010-2012) with tourism demand in the *high uncertainty period* (2013-2017), when socio-political risks increase worldwide. In fact, examining the 2004-2009 and 2010-2017 periods separately allows us to see whether deterioration in financial conditions or increase in social unrest have more negative impact on tourism demand. Then, as a robustness check, we repeat the regressions such that the first-time interval includes the period between 2004 and 2012 (referred to as *pre-2013*) and the second time interval, which includes the period between 2013 and 2017 (referred to as *post-2013*). The robustness check allows us to discover whether the increase in socio-political risks leads to downturn in tourism demand

in the destination countries despite the several tourism incentives that appear in the post-2013 period.

In Oaxaca-Blinder decomposition analysis, with X representing the control variables and $\hat{\beta}$ the coefficient estimates, the tourism demand, referred to as T , in logarithmic form, $\log(T)$ can be written as follows:

$$\log(T_{ijt}) = X_{ijt}'\beta_{ijt} + \varepsilon_{ijt} \quad E(\varepsilon_{ijt}) = 0 \quad (1)$$

where i and j refer to origin and destination countries respectively and t refers to time dimension. Finally, ε is the random error term.

The script t in equation (2) is defined as *pre* for 2004-2006 and it is defined as *post* for 2007-2009. Hence, the change in the average value of $\log(\bar{T}_{ijt})$ between the global crisis and post-crisis periods can be written as follows:

$$\log(\bar{T}_{ijpost}) - \log(\bar{T}_{ijpre}) = \bar{X}_{ijpost}\hat{\beta}_{ijpost} - \bar{X}_{ijpre}\hat{\beta}_{ijpre} \quad (2)$$

Following Oaxaca and Ransom (1994), the pooled coefficient $\hat{\beta}^*$ is used in the analysis and the coefficient is defined in the following manner:

$$\hat{\beta}^* = \frac{n_{post}}{n_{post}+n_{pre}}\hat{\beta}_{post} + \frac{n_{pre}}{n_{post}+n_{pre}}\hat{\beta}_{pre} \quad (3)$$

where n refers to number of observations.

Then, the change in the average value of $\log(\bar{T}_{ijt})$ between post-crisis and pre-crisis years can be decomposed as follows:

$$\log(\bar{T}_{post}) - \log(\bar{T}_{pre}) = [(\bar{X}_{post} - \bar{X}_{pre})\hat{\beta}^*] + [\bar{X}_{post}(\hat{\beta}_{post} - \hat{\beta}^*) + \bar{X}_{pre}(\hat{\beta}^* - \hat{\beta}_{pre})] \quad (4)$$

In equation (4), the first square brackets on the right-hand side represent the part of decomposition that is explained by the variation in control variables, and the second square brackets are related to the variations in the progression that determines T also capture the part of change in T due to time differences in unmeasurable or unobserved factors, such as tourists' preferences or sociopolitical events).

The analysis is then replicated for the period between 2010 and 2017. Hence, we re-estimate equation (4) where we replace the subscripts *post* with *high uncertainty (2013-2017)* and *pre* with *low uncertainty (2010-2012)* respectively. Last, to see the robustness of our results,

we replicate the regressions for the period between 2004 and 2017 as a whole. In the last specification, we define the period between 2004 and 2012 as *pre-2013*, and we refer to the period between 2013 and 2017 as *post-2013* period.

4. Results

Decomposition results obtained from estimating equation (4) are presented in Table 3.

Table 3: Decomposition Results

	(1)	(2)	(3)
	Earlier	Earlier Period:	Earlier Period:
	Period:2004-2006	2010-2012	2004-2012
	Later Period:	Later Period:	Later Period:
	2007-2009	2013-2017	2013-2017
Mean Log (T_{ijt}) (earlier period)	11.1328	11.5067	11.3273
Mean Log (T_{ijt}) (later period)	11.3419	11.8129	11.8129
Difference	0.2091	0.3061***	0.4856***
Explained difference (in logarithmic form)	0.1610	0.2792	0.4757***
Unexplained Difference (in logarithmic form)	0.0480	0.0269	0.0098
Contributions from across-year differences in:			
Log(GDP per capita)	0.0379	0.0449	0.0733**
Log(Transportation Cost)	-0.051	0.0398*	-0.012
Log(Relative Price index/Exchange Rate)	-0.0045	0.0008	0.0028
Trend	1.2229	1.7537**	2.9788***
Observations	737	984	1,721

Source: Authors' Calculations by using Authors' own established data set derived from WDI, European Commission Distance Calculator and The German Agency for International Cooperation. The signs (*), (**) and (***) refer to levels of significance at 10%, 5% and 1% respectively.

In Table 3, the column (1) shows the mean values of tourism demand (in logarithms) in the *precrisis* (referred to as earlier year in row 1) and in the *global crisis* period. Similarly, column (2) shows the respective mean values for the low uncertainty (2010-2012) and high uncertainty

(2013-2017) periods. Finally, column (3) shows those mean values for the pre-2013 and post-2013 periods. *Explained Difference* shows the difference between the average tourism demand in later and earlier periods that is attributed to the variation in distribution of the financial and economic control variables in each period. For example, column (1) of the table shows that 0.161 log-unit of the 0.209 log-unit increase in tourism demand between pre-crisis and post-crisis years can be explained by the variation in the distributions of financial and economic explanatory variables, however the increase in average tourism demand in this period is not significant. In addition, column (2) shows that 0.278 log-unit of the 0.306 log-unit rise in tourism demand in the high uncertainty period is explained by the changes in the distributions of control variables.

One can expect the unexplained portion to be higher for the post 2013 period, since there are several popular and obvious incentives in the global market that increase tourism volume. First, financially supported exchanges of staff and students between schools and institutions and the tourism activities of these people during their stay have been increasingly observed. Second, the related social media emerges. For instance, Instagram, in which many people now have not only the chance but also motivation to share their touristic activities leads to an increase in tourism demand. Third, the emergence of low-cost tour and accommodation tools such as Interrail (a pass which allows unlimited rail travel in (and between) all 33 participating countries of EU for a certain period of time with a reasonable deposit) act as accelerators of tourism activity. However, Table 3 clearly shows that the size of the unexplained part of the rise in average tourism demand between 2007 and 2009 is higher than the unexplained part of the rise in tourism demand between 2013 and 2017. Hence, the results indicate that increase in socio-political risk level in the post-2013 period act as a decelerator in the number of tourist arrivals in emerging countries between 2013 and 2017. Therefore, although the incentives in the global market dramatically expand in the post-2013 period, the increasing uncertainty world-wide has a large-scale negative impact on tourism demand in the emerging countries that we investigate.

The last, column (3) shows that there is a considerable increase in tourism demand between 2013 and 2017 compared to the period 2004-2012. The variation in tourism demand between the pre-2013 and post-2013 period is significant and 0.48 log-unit of the 0.49 log-unit

increase in tourism demand is significantly explained by variation in the distributions of explanatory variables that we use in the empirical analysis. In addition, less than 1 log-unit of the increase in tourism demand is explained by unobserved factors that may affect the tourism demand. This result is consistent with our previous findings, since the unexplained portion of the increase in tourism demand in the post-2013 period is much less than we expect, most probably due to the increase in socio-political risks.

Thus, we conclude that socio-political risks lead to the deterioration in tourism demand. This result is consistent with the findings of Demir and Gözgör (2018), who find that economic policy uncertainty negatively affects the tourism demand in several countries in the post-2013 period by using the Economic Policy Uncertainty (EPU) index as the main control variable. In that paper, however, the authors cannot detect whether the deterioration in tourism demand is a result of financial based or socio-politic factors. On the contrary, we confidently state that most of the negative effect on tourism demand comes from increase in socio-political risks rather than financial risks thanks to the results obtained from the decomposition analysis.

5. Conclusion

There are studies in the literature which focus on some aspects of the post 2013 period using different indexes (See for instance, Demir and Gözgör, 2018; Balli, et.al., 2019; Demir, et al., 2019; Neacșu et. al, 2018; Saint Akadiri, et. al, 2020; Tiwari, et. al, 2019.). They find that economic policy uncertainty (Demir and Gözgör, 2018) and geopolitical risks (Balli, et.al., 2019; Demir, et al., 2019; Neacșu et. al, 2018; Saint Akadiri, et. al, 2020; Tiwari, et. al, 2019.) are important obstacles for the development of tourism. However, duration, scope and calculation limitations make the approaches implausible for understanding the socio-politic specific effects of the post 2013 uncertainty on tourism.

This paper considers emerging countries, instead of focusing on only the countries for which index values are calculated. In addition, the study differentiates from previous studies in its empirical methodology. Oaxaca-Blinder decomposition analysis is the only tool for detecting whether the unexplained portion of the variation in tourism demand due to socio-political risk is higher in the post-2013 period, therefore this methodology best fits the

hypothesis. There is no study that uses decomposition analysis to differentiate the effects of different crises on tourism demand in emerging countries. Hence, this study makes an important theoretical contribution to the tourism economics literature. Empirical analyses suggest that although the non-financially explained portion of variation in tourism demand is positive between 2013 and 2017, it is closer to zero, which points out the negative effect of rise in socio-political risk on tourism demand in the post-2013 period. This result is quite specific to the time period and region the paper investigates. Hence, the findings of the paper are quite different from the general conclusions in the previous literature (e.g. the papers that use index values that measure specific countries' socio-political risks).

To conclude, emerging countries, which are affected negatively from the turmoil after the year 2013, should come together to support efforts which may help to improve the image of tourism in general. For instance, they can support campaigns, movies, TV series, social media figures claiming well-being as the result of being on the road and seeing different places. Lobbying political decision makers about the impact of their political choices on tourism perception is also necessary. After achieving a positive image of tourism activity in general, countries can continue their efforts to expand the tourism demand. Further research in the area can focus on the effects of the post-2013 period on the tourism revenues of emerging countries.

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