Araştırma Makalesi

Dynamic Panel Data Analysis of the Relationship between Economic Freedom and Tourism

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Abstract
This paper explores the dynamic relationship between economic freedom and the tourism industry while controlling for the potential heterogeneity. Countries that report high levels of economic freedom index tend to have a more favorable business climate that increases the stability of the labor market; monetary system and rule of law. As a consequence, it can attract more investments in different sectors including the tourism industry. Thereby, economic freedom is expected to cause the tourism industry. Herein, we have explored the link of interest by collecting the balanced panel data for 87 countries over the period 2002-2015. The methodology includes the panel VAR model. The findings of this article suggest a unidirectional link running from economic freedom to the tourism industry. Given the importance of the tourism industry, this paper suggests that governments should make necessary changes to foster economic freedom since it is found to be an important factor to attract foreign tourists.
Key words: economic freedom, economic growth, relationship, tourism
JEL Classification Codes: Z32, C23

Ekonomik Özgürlük ve Turizm İlişkisinin Dinamik Panel Veri Analizi

Öz
Bu çalışma, potansiyel heterojenliği kontrol ederken, ekonomik özgürlük ve turizm endüstrisi arasındaki dinamik ilişkiyi araştırmaktadır. Yüksek düzeyde ekonomik özgürlük endeksi rapor eden ülkeler, işgücü piyasasının istikrarını artıran daha uygun bir iş ortamına sahip olma eğilimindedir. Sonuç olarak, turizm endüstrisi de dahil olmak üzere farklı sektörlerde daha fazla yatırım çekilebilir. Böylece ekonomik özgürlüğün turizm sektörünün gelişmesine neden olması beklenmektedir. Çalışmada, 2002-2015 dönemi boyunca 87 ülke için dengeli panel verileri toplanarak ilgi bağlantısı incelenmiştir. Metodoloji panel VAR modelini içermektedir. Bu çalışmanın bulguları, ekonomik özgürlükten turizm endüstrisine uzanan tek yönlü bir bağlantı olduğunu göstermektedir. Turizm endüstrisinin önemi göz önüne alındığında, hükümetlerin yabancı turistleri çekmek için önemli bir faktör olduğu için ekonomik özgürlüğü artırmak üzere gerekli değişiklikleri yapmaları gerektiği önerilmektedir.
Anahtar Kelimeler: Ekonomik Özgürlük, Ekonomik Büyüme, İlişki, Turizm
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1. Introduction

As an introductory remark to this paper we will emphasize the role of tourism at the global level as well as the role of economic freedom and point out the ways these are interconnected. The last observed year in this paper is 2015. The role of tourism industry in economic prosperity is rising exponentially at the global level. It tends to stimulate the socioeconomic growth and to drive the standard of living (Muslija, Satrovic and Unver Erbas, 2017, p. 536). It is also of crucial importance to indicate that tourism industry plays a great role in job creation, elimination of poverty, the protection of the environment as well as in the promotion of the peace and understanding all over the world (Meyer and Meyer, 2015, p. 197; Vroom, 1979, p. 10; Keskin and Cansiz, 2010, p.23).

Statistics indicating that tourism sector contributes 6% of the total world exports and 10% of global GDP (UNWTO Annual Report, 2015, p. 10) highlighting the importance of tourism as an economic sector nowadays. These numbers outline a great power of the tourism industry as well as the potential and capacity to contribute not only to economic but also to socio-economic growth.

The sector of tourism has a very complex structure (Inskeep, 1991, p, 22). Herein, it has a great link with various areas such as politics, culture, economics, management etc. Moreover, this sector is behind as many as one in eleven jobs worldwide. Therefore, it is considered to be an important source of livelihood for millions of people. Taking this into account, one of the most important roles of tourism is that it increases the understanding of the globe beyond borders and becomes a great source of communication and building the peace across nations. However, the tourism sector needs the infrastructure to be developed. This is in general financed by the government (Oktayer, Susak and Cak, 2007, p. 60). Thus, this industry is bit risky and very sensitive to the political and economic development of the country of interest (Akay and Oguz, 2015, p. 214).

On the other hand, economic freedom tends to have a positive impact on the many aspects of economic output. This is since better protection of human rights and better business climate stimulate entrepreneurship. The most commonly used proxy variable of economic freedom – Economic Freedom Index tends to provide a numerical value of the effects of the liberty and free markets worldwide for over two decades. The motivation for building this index arose from the heroic events that took place in Europe 25 years ago. People who used to live in poverty and fear have experienced modernization in terms of economy and rebirth of productivity thanks to economic freedom (Index of Economic Freedom, 2015, p. 11).

The increase in economic freedom on the global level is expected to arise from improvements in the control of corruption, monetary freedom and trade freedom. In terms of other economic freedoms (business, labor, financial and property rights) small declines are registered worldwide. In terms of the overall observed period, it is important to emphasize that the economic freedom has recorded lower growth rates in the recent years compared to the periods before.

Taking into account the important role of tourism industry in job creation and promotion of the peace and understanding all over the world, economic freedom that includes (trade freedom, business freedom, labor freedom and especially property rights) is expected to be an important determinant of the development of tourism industry in this paper. The analysis centers on whether economic freedom is sanding or greasing the wheels of tourism development. Assuming that we control for the potential heterogeneity among the countries of interest, this paper tends to give a new perspective on the nexus of interest while employing the panel data econometrics. The rest of the paper proceeds as follows. In Section 2, we review the literature and give theoretical arguments regarding the relationship between economic freedom and tourism. In Section 3, we describe the data, variables and methodology. In Section 4, we present empirical evidence on the matter. Finally, we conclude in Section 5.

2. Literature Review and Development Hypothesis

Research up-to-date has explored intensively the tourism-growth nexus. Authors in general agree on the positive impact of tourism industry on the economic growth. However, the direct relationship between economic freedom and tourism has not been explored quite extensively while controlling for the potential heterogeneity between the countries what was the motivation to conduct this research. This part of the paper summarizes the results of some empirical studies on the matter of interest.

Ozcan, Aslan and Nazlioglu (2017) have examined the causal relationship, if any, between the arrivals of foreign tourists and economic freedom. For the purpose of empirical study, they have collected the data on 17 post-socialist transition countries over the period 1996-2012 (Ozcan et al., 2017, p. 78). In terms of methodology, they have used Granger causality approach. The findings in this paper indicate the neutrality between economic freedom and economic growth and between economic growth and international tourism. However, the authors have found that only economic freedom causes tourism in 16 out of 17 observed countries. Bidirectional relationship is not reported.

Well-functioning institutions tend to improve significantly the efficiency of almost all the sectors. This holds true for tourism sector as well. This is well supported by

previous research on the matter. To mention one, Acemoglu, Simon and James (2001) explore whether the quality of economic institutions (economic freedom) may influence the tourism industry over economic growth. The positive impact is found in this research (Acemoglu et al., 2001, p. 1391).

Saha, Su and Campbell (2016) have conducted an empirical analysis in order to investigate whether or not the political and economic freedom matter for the arrival of foreign tourists. They have collected panel data for over 110 countries (Saha et al., 2016, p. 221). The observed period ranges from 1995 to 2012. The used methodology includes panel country fixed-effects methods. The findings suggest a significant positive impact of economic freedom as well as civil liberties on the tourism industry. Civil liberty is found to be more important determinant of tourism industry in countries where economic freedom is at relatively low level.

The relationship between tourism industry and the presence of world heritage sites is explored in Su and Lin (2014). Longitudinal data are collected using the case of 66 countries. The observed period ranges between 2006 and 2009 (Su and Lin, 2014, p. 46). They have employed pooled ordinary least squares (OLS) regression. The findings of this research report a positive relationship between heritage sites and the number of tourists. This research has also controlled for the impact of political freedom. The authors assume that more politically free environment tends to attract foreign tourists since they feel more secure. The absence of red tape increases the willingness to travel for many foreign tourists.

With regards to the growth theory, Ozcan et al. (2017, p. 80) suggest that institutions are one of the most important players in the growth process. Thus, many of the authors provide the evidence on the link between economic growth and institutions (North, 1990 and Landes, 1998). This is due to the fact that more developed institutions tend to provide the better protection of property rights, improve the business climate and support the investments in the better technology and the skills development that will consequently improve the growth process (Acemoglu and Robinson, 2013, p. 20). In this light, it is important to emphasize that economic freedom indicates to what degree the certain economy can be considered as a market economy, whether or not the rule of law reacts proactively for the contract holders, whether it protects the property rights and what is the extent of the intervention of government (Berggren, 2003, p. 194). Thus, this freedom enables individuals to be engaged in the job they like, to purchase the goods they like as well as to conduct their investment activities (Beach and Kane, 2008, p. 40). It is important to emphasize that these rights are guaranteed by the state. In the line with the aforementioned, institutions tend to increase the efficiency of almost all economic sectors. Thus, the significant positive impact of it can be expected in terms of

international tourism (Acemoglu et al., 2001, p. 1369). Ozcan et al. (2017, p. 81) suggest that the political economy consists of many subfields, and one of those is the institution economics. However, the subfield treating the tourism economy is of the new date, thus it was really hard to find the empirical evidence treating the link between tourism and economic freedom.

Apart from previous paragraphs, it is important to emphasize that the tourism industry presents very important generator of employment opportunities. Thereby, the interest of many governments is to promote this sector. This support can be understood in the light of political economy. Saha et al. (2016, p. 222) emphasize that the conventional logic supports the positive link between tourism industry revenue and economic freedom. However, they stress the need to take into account the preference of tourists to live something different but liberal democratic countries. Even tough, tourists may be interested to experience something different (corrupt societies, dictatorship etc.) there is still a fear of getting into trouble. Thereby, the lack of main freedoms (including economic) may have a negative influence on the attractiveness of some country in the fields of tourism and thus reduce the tourism revenue. This is since economic freedom provides better climate for firms to provide different spectrum of services in the fields of tourism and thus to increase the potential for higher tourism revenues. As a supportive evidence, Knack and Keefer (1995, p. 208) and Easton and Walker (1997, p. 328) suggest that more economic freedom is in a line with better business climate that increases the stability of labor market; monetary system and rule of law. As a consequence, it can attract more investments in different sectors including the tourism industry.

Growth theory asserts that in addition to factors in standard neoclassic production function, high quality formal institutions play an important role in economic growth process. North (1990) and Landes (1998) postulate that there exist strong links between economic institutions and economic growth. The intuition derived from the conventional institutional approach exclusively assumes that the causality runs from institutions to economic development, and therefore, the theory ignores an important possibility that economic growth may also stimulate better economic institutions. Acemoglu and Robinson (2013) argue that economic institutions that enforce property rights, create a level playing field, and encourage investments in new technologies and skills are conducive to economic growth. According to Berggren (2003: 194), economic freedom is a composite arrangement that attempts to characterize the degree to which an economy is a market economy, that is, the degree to which it entails the possibility of entering into voluntary contracts within the framework of a stable and predictable rules of law that uphold contracts and protect private property, with a limited degree of interventionism in the form of government ownership, regulations, and taxes.

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The freedom is, therefore, related to freedom of individuals to work, to produce, to consume, and to invest in any way they please, and the freedom is both protected by the state and unconstrained by the state (Beach and Kane, 2008). Growth theory asserts that in addition to factors in standard neoclassic production function, high quality formal institutions play an important role in economic growth process. North (1990) and Landes (1998) postulate that there exist strong links between economic institutions and economic growth. The intuition derived from the conventional institutional approach exclusively assumes that the causality runs from institutions to economic development, and therefore, the theory ignores an important possibility that economic growth may also stimulate better economic institutions. Acemoglu and Robinson (2013) argue that economic institutions that enforce property rights, create a level playing field, and encourage investments in new technologies and skills are conducive to economic growth. According to Berggren (2003: 194), economic freedom is a composite arrangement that attempts to characterize the degree to which an economy is a market economy, that is, the degree to which it entails the possibility of entering into voluntary contracts within the framework of a stable and predictable rules of law that uphold contracts and protect private property, with a limited degree of interventionism in the form of government ownership, regulations, and taxes. The freedom is, therefore, related to freedom of individuals to work, to produce, to consume, and to invest in any way they please, and the freedom is both protected by the state and unconstrained by the state (Beach and Kane, 2008).

Despite to the fact that the link between tourism and economic freedom has not received much attention in previous studies, those papers that analyze variables of interest give strong empirical evidence on the causal link running from economic freedom to tourism industry. Therefore, the significant relationship is expected in the research to follow. However, this paper differs from the aforementioned studies in a line that it controls for the potential heterogeneity between the countries of interest. This is since our paper employs the panel VAR methodology.

3. Research Methodology

This paper tends to explore the potential link between the variables of interest. For this purpose, the panel VAR model has been proposed assuming the endogenous variables in the sample. These models have been used quite intensively while employing the time-series data. However, panel VAR models are of the new date. Since the countries of interest are assumed to be independent, panel VAR models are accepted as appropriate (Abrigo and Love, 2016). One important property of these models is the tendency to reduce the number of restrictions while analyzing the dependencies between the variables that tend to be dynamic. Hereafter, an important

property is the ability to explore the IRFs. Apart from the fact that these models have been criticized, these are still very popular in the modern empirical research. The model to be estimated (Eq. 1) in this paper follows the proposition of Abrigo and Love (2016):

$$Y_{it} = Y_{it-1}A_1 + Y_{it-2}A_2 + \cdots + Y_{it-p+1}A_{p-1} + Y_{it-p}A_p + X_{it}B + u_{it} + \varepsilon_{it}. \quad (1)$$

The notation is given as following: response variables: Y_{it}, their dimension: $(1 \times k)$; endogenous variables: X_{it}, their dimension: $(1 \times l)$; fixed effect: u_{it}; errors: ε_{it}. The assumption for shocks: $E[e_{it}] = 0, E[e'_{it}e_{it}] = \Sigma$ and $[e'_{it}e_{is}] = 0$. Panel data are collected at the annual level ranging from 1 to T_i. Countries of interest are denoted by i. Nickell (1981) emphasizes that the dependent variable included as a regressor may give the biased results, thus the estimation should be carefully conducted. The research question of this paper is if there is any link between tourism industry and economic freedom. The formalization of the model is given by Eq. 2 as following:

$$\boldsymbol{TOUR_{it}} = \sigma + \sum_{i=1}^{k} \boldsymbol{\beta_i} \boldsymbol{TOUR_{t-1}} + \sum_{j=1}^{k} \theta_j \, EFI_{t-j} + \sum_{m=1}^{k} \varphi_m \, EG_{t-m} + u_{1t}$$

$$\boldsymbol{EFI_{it}} = \alpha + \sum_{i=1}^{k} \beta_i \, TOUR_{t-1} + \sum_{j=1}^{k} \boldsymbol{\theta_j} \boldsymbol{EFI_{t-j}} + \sum_{m=1}^{k} \varphi_m \, EG_{t-m} + u_{2t}$$

$$\boldsymbol{EG_{it}} = d + \sum_{i=1}^{k} \beta_i \, TOUR_{t-1} + \sum_{j=1}^{k} \theta_j \, EFI_{t-j} + \sum_{m=1}^{k} \boldsymbol{\varphi_m} \boldsymbol{EG_{t-m}} + u_{3t}. \quad (2)$$

With regards to panel VAR, it eases the control of the dependencies that are both, static or dynamic Canova and Ciccarelli (2013). Thus, the potential dynamic can be taken into consideration. In addition, they control for the potential heterogeneity. This is since panel data are taken into account (Satrovic, 2018). Thus, the empirical evidence in this paper follows Love and Zicchino (2006).

In order to explore the link of interest, there was a need to select appropriate proxy variables. Higher quality services and better hospitality tend to attract more tourists, increase earnings from tourism industry and to contribute to the economy as a whole (Satrovic and Muslija, 2017, p. 93). Since tourism is found to contribute the 6% of the total world exports, we have used the tourism receipts in real terms as a share of export to be the proxy of tourism industry (TOUR). On the other hand, one of the most challenging tasks in this paper was to find appropriate proxy variable of economic freedom. Heckelman (2000), Dawson (2003) and Ozcan et al. (2017) indicate that the Index of Economic Freedom (EFI), is appropriate proxy variable of economic freedom. Therefore, this variable is accepted in this paper as well. In economic societies where people enjoy economic freedom, they have an opportunity to freely work, produce, consume and make investments. The Heritage Foundation also indicates that economic freedom is expected to bring in greater prosperity, to increase democracy, to reduce poverty and to increase overall human development.

These properties of economic freedom tend to be important determinants of the development of tourism industry. The Heritage Foundation emphasizes that economic freedom measure consists of 12 factors (both qualitative and quantitative). Score ranges between 0 and 100. Higher-score is associated with better economic freedom.

In addition, economic growth is expected to be an important determinant of tourism industry. This is why this paper controls for the impact of economic growth. GDP growth (annual %) - EG is used as a proxy of economic growth. The data, used to estimate the relationship between EFI and TOUR are collected for the sample of 87 countries over the period 2002-2015. The list of countries is given in Appendix 1. The source of the data is World Bank and The Heritage Foundation. The main criterion to select a time frame was the data availability. In addition, an attempt is made to include the most recent data.

4. Findings and Discussion

The empirical part will try to give the evidence on the link between economic freedom and tourism industry. To proceed to this estimation, there is a need to present the most important measures of the descriptive statistics. These measures are displayed in Table 1.

Table 1: Descriptive statistics

Statistics	TOUR	EFI	EG
Mean	14.44	62.87	3.98
Sd	18.32	9.78	3.92
Max	170.48	90.10	34.50
Min	0.02	34.30	-14.80
skewness	2.91	0.34	0.45
kurtosis	14.60	3.04	11.36
countries	87		

The mean value of the share of tourism receipts in the total export is found to be 14.44%. The maximum reported value of 170.48% is reported in 2005 in the case of Mali which is known as an economy that strongly depends on the tourism sector. With regards to the minimum value of 0.02% it is reported in 2015 in the case of Paraguay. In the light of the proxy of economic freedom, the mean index is displayed to be 62.87. The maximum value of 90.10 is reported in 2014 in Hong Kong. Due to the great economic and other freedoms, this country has recorded exponential economic growth and reports one of the highest standards of living in the world. In terms of the minimum value (34.3), it is reported in 2015 in the case of Venezuela. As a consequence, the country suffers from various issues resulting in protests all over the country. At last, the average recorded economic growth rate is 3.98%. The maximum (34.5%) is reported in the case of Azerbaijan in 2006, whereas the minimum (-14.8%) is reported in 2009 in Ukraine. The significant differences are recorded in the sample of countries.

In addition to the descriptive statistics, there is a need to test for the stationarity of the variables. For this purpose we have used the three commonly used panel unit root tests that have included the trends. The stationarity is tested in level as well as in the first difference (Table 2).

Table 2: Unit root test

Trend included in the model	TOUR		D.TOUR		EFI	
Method	Stat.	p	Stat.	p	Stat.	p
Levin–Lin–Chu (LLC) t* test	-7.08	0.000	-32.49	0.000	-14.79	0.000
Im–Pesaran–Shin test	1.16	0.877	-17.37	0.000	-4.61	0.000
ADF – Fisher inverse chisquare	161.56	0.741	482.29	0.000	278.44	0.000

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Table 2: Unit root test (continued)

Trend included in the model	D.EFI		EG		D.EG	
Method	Stat.	p	Stat.	p	Stat.	p
Levin–Lin–Chu (LLC) t* test	-26.26	0.000	-19.09	0.000	-30.20	0.000
Im–Pesaran–Shin test	-15.63	0.000	-10.06	0.000	-18.82	0.000
ADF – Fisher inverse chisquare	463.13	0.000	377.28	0.000	780.01	0.000

The null hypothesis on unit root cannot be rejected for the level value of the tourism proxy variable while employing the Im–Pesaran–Shin (IPS) and ADF – Fisher inverse chisquare test. However, Levin–Lin–Chu (LLC) t* test provides the supportive evidence to the stationarity properties. In terms of the other two variables, all of the tests agree on the absence of unit root in levels. To check the validity of these results we have tested for the stationarity properties of the first differences. The findings in Table 2 indicate that all first differences are found to be stationary for a 1% level of significance while employing all three tests. In addition to the stationary test, it is of great importance to check the panel VAR order (Table 3).

The selection criterion is based on J statistics proposed by Hansen (1982) and was explained in detail by Andrews and Lu (2001). MBIC and MQIC report the minimum value in the first order. Thereby, the research to follow employs the first-order panel VAR model.

Table 3: The order of PVAR

Order	CD	J	J p-value	MBIC	MAIC	MQIC
1	0.999681	39.22367	0.060452	-140.681	-14.7763	-63.1922
2	0.999703	20.75527	0.291939	-99.1811	-15.2447	-47.522
3	0.998595	6.855266	0.652185	-53.1129	-11.1447	-27.2834

To move forward, there was a need to estimate and interpret the panel VAR model that includes the three variables of interest (Table 4). There are the only two significant coefficients suggesting a negative response of economic growth to its lagged value. However, the most important finding of the table below, suggests a significant positive response of the tourism industry on the economic freedom. Taking into account many positive externalities of the economic freedom, this result is quite expected. Thereby, economic freedom is expected to improve the business climate and to attract investors in tourism facilities. Besides that, better rule of law tends to increase the interest of entrepreneurship which can consequently reduce the unemployment rate. Thus, the economic freedom is very beneficial both for tourism

industry and for the economy as a whole. Since the main point of this research article is to explore the potential causal relationship between the variables of interest, Granger causality test outcomes are summarized in the Table 5.

The results of panel VAR are confirmed in the Table 5. In terms of the individual relationship, the economic freedom is only found to have a significant causal impact on the tourism industry. The other coefficients are not found to be significant for a 5% level of significance. However, it is very informative to indicate that the joint impact of economic freedom and economic growth on tourism industry is found to be significant indicating the necessity to take into account the economic growth while investigating the potential role of economic freedom in the development of tourism sector.

Table 4: Panel VAR model

Independent variables	Dependent variables		
	D. TOUR	D. EFI	D. GDP
$D.TOUR_{t-1}$	0.051 (0.038)	0.002 (0.013)	-0.022 (0.019)
$D. EFI_{t-1}$	0.185 $(0.088)^{**}$	0.004 (0.043)	-0.130 (0.090)
$D. GDP_{t-1}$	-0.030 (0.021)	0.012 (0.012)	-0.110 $(0.054)^{**}$

Note: ***, **, * significant at 1%, 5% and 10% respectively.

Table 5: Granger causality test

Equation	Excluded		
	D.EFI	D.GDP	All
D.TOUR	4.439 $(0.035)^{*}$	2.137 (0.144)	7.760 (0.021)
	D.TOUR	D.GDP	All
D.EFI	0.016 (0.900)	1.008 (0.315)	7.942 (0.604)
	D.TOUR	D.EFI	All
D.GDP	1.379 (0.240)	2.098 (0.148)	3.018 (0.221)

Note: * p-value

To conclude the empirical section, we have calculated the forecast-error variance decomposition (FEVD) and impulse responses function (IRF). The findings of FEVD suggest that the most of the variability of the macroeconomic terms of interest is explained by themselves. These findings are very informative and stress the need to

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be very careful while selecting the factors that determine the variables of interest. Moreover, all of these macroeconomic terms are very complex, thus there are many variables that can potentially be important determinants.

Table 6: Forecast-error variance decomposition

Response variable	Impulse variable		
D.TOUR	**D.TOUR**	**D.EFI**	**D.GDP**
0	0	0	0
1	1	0	0
2	0.993734	0.004961	0.001305
3	0.993682	0.004989	0.001329
4	0.993682	0.004989	0.001329
5	0.993682	0.004989	0.001329
6	0.993682	0.004989	0.001329
7	0.993682	0.004989	0.001329
8	0.993682	0.004989	0.001329
9	0.993682	0.004989	0.001329
10	0.993682	0.004989	0.001329
D.EFI	**D.TOUR**	**D.EFI**	**D.GDP**
0	0	0	0
1	8.63E-05	0.999914	0
2	9.01E-05	0.998462	0.001448
3	9.01E-05	0.998444	0.001466
4	9.01E-05	0.998444	0.001466
5	9.01E-05	0.998444	0.001466
6	9.01E-05	0.998444	0.001466
7	9.01E-05	0.998444	0.001466
8	9.01E-05	0.998444	0.001466
9	9.01E-05	0.998444	0.001466
10	9.01E-05	0.998444	0.001466
D.GDP	**D.TOUR**	**D.EFI**	**D.GDP**
0	0	0	0
1	0.003947	2.50E-07	0.996053
2	0.00402	0.001717	0.994263
3	0.00402	0.001726	0.994254
4	0.00402	0.001727	0.994254
5	0.00402	0.001727	0.994254
6	0.00402	0.001727	0.994254
7	0.00402	0.001727	0.994254
8	0.00402	0.001727	0.994254
9	0.00402	0.001727	0.994254
10	0.00402	0.001727	0.994254

Due to the fact that economic model can never include all of the determinants, since the number of determinants is in general infinite, the decision makers need to decide on the most important determinants based on the theory and the experience. At last, we have explored the IRFs. The findings suggest that TOUR is found to respond positively to the change in EFI in both, short- and the long-run. However, this effect is found to be more intensive in the first periods of interest.

5. Conclusion

At first glance it might seem obvious that the increase in economic freedom increases the attractiveness of some destination for tourists. However, an important thing to mention is that very often tourists are looking forward to have different experience and are willing to travel to countries characterized as "tourist friendly" dictatorships. Cuba represents good example of "tourist friendly" dictatorship that raises great awareness among world visitors.

The relationship between economic freedom and tourism industry has not been a popular research of debate. Therefore, due to the reasons mentioned above, the question on the direction of relationship remains open. Hence, this research aims to give an answer to this question and fill in this gap in the literature. For the purpose of the empirical part of this research, balanced panel data are collected for 87 countries. The observed period is between 2002 and 2015. Econometrics of panel data (panel VAR) has been employed.

The most important finding of the panel VAR model suggests a significant positive response of the tourism industry on the economic freedom. Taking into account many positive externalities of the economic freedom, this result is quite expected. Thereby, economic freedom is expected to improve the business climate and to attract investors in tourism facilities. Besides that, better rule of law tends to increase the interest of entrepreneurship which can consequently reduce the employment rate. Thus, the economic freedom is very beneficial both for tourism industry and for the economy as a whole. These findings are confirmed by Granger causality test suggesting the unidirectional causal link running from economic freedom to the development of tourism sector. With regards to the FEVD, the most of the variability of the macroeconomic terms of interest is explained by themselves. At last, we have explored the IRFs. The findings suggest that TOUR is found to respond positively to the change in EFI in both, short- and the long-run. However, this effect is found to be more intensive in the first periods of interest. The findings of this paper are supported by Ozcan et al. (2017). However, the other most influential paper treating the link of interest has employed different methodology, thus the direct comparison was not

possible. Apart from this it is important to emphasize that Saha et al. (2016) report a positive link of economic freedom on tourism industry.

The results of this paper suggest that economic freedom tends to have a significant role in the development of tourism industry. Moreover, tourism industry is recognized as an important job creator, promoter of peace and understating all over the world. Therefore, governments should make a great effort to foster economic freedom since it can have a great contribution to one of the most important industries nowadays – tourism industry. The economic freedom can be developed by paying attention to its components. Special attention should be paid to the reduction of corruption; the development of monetary and trade freedom. By improving the rule of law, most of these freedoms will be induced. Thus, the decision makers need to create necessary strategies to promote the components of economic freedom that tend to have a great socio-economic impact. Taking into account the previous findings, there are some recommendations for future research. There is a need to take into account the financial development; trade openness and the role of infrastructure. Moreover, Abul, Satrovic and Muslija (2019, p. 38) emphasize the necessity to investigate the role of energy consumption. Hereafter, tourism industry is a great energy glutton, thus the energy consumption should be also taken into consideration while analyzing the link between tourism and economic freedom.

Appendix 1

Albania	Costa Rica	Indonesia	New	Sweden
Argentina	Croatia	Italy	Zealand	Switzerland
Azerbaijan	Cyprus	Jamaica	Nicaragua	Tanzania
Bahrain	Czech Rep.	Japan	Nigeria	Thailand
Bangladesh	Denmark	Jordan	Oman	Tunisia
Belarus	Ecuador	Kazakhstan	Pakistan	Turkey
Belgium	Egypt	Kenya	Panama	Uganda
Bolivia	Estonia	Kyrgyz Rep.	Paraguay	Ukraine
Bosnia and	Finland	Lao PDR	Peru	United
H.	France	Latvia	Philippines	King.
Botswana	Germany	Luxembourg	Poland	United
Brazil	Ghana	Macedonia	Portugal	States
Bulgaria	Guyana	Malaysia	Russia	Uruguay
Cambodia	Haiti	Mali	Saudi	Venezuela
Cameroon	Honduras	Malta	Arabia	Vietnam
Canada	Hong Kong	Mexico	Senegal	Zambia
Chile	Hungary	Moldova	Singapore	
China	Iceland	Namibia	Slovenia	
Colombia	India	Netherlands	Sri Lanka	

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