MARUSKA VIZEK
Institute of Economics Zagreb, Croatia

MARINA TKALEC
Institute of Economics Zagreb, Croatia

THE PRICE TAG OF TOURISM: DO SMALL OPEN ECONOMIES DEPENDENT ON TOURISM REVENUES EXPERIENCE HIGHER PRICES OF GOODS AND SERVICES?

Abstract:

Although theoretical models describing the influence of tourism on welfare of the host economy suggest that increase in prices is a direct outcome of intensified tourism activity, so far this outcome has not been put to the empirical test. Therefore, we use panel data models on a data set covering EU new member states and candidate countries (Montenegro and Turkey) in order to investigate the relationship between tourism dependence and the price level. Along with modeling the overall price level, we also separately model the price level of consumer goods, price level of consumer services, and price level of goods and services associated with tourism consumption (hotels and restaurants, recreation and culture, transportation, and food and beverages). Thereby, we control for other factors that commonly influence the price level of an economy, such as income, productivity, trade openness, money and fiscal dominance. Our results suggest that a dominant tourism sector increases the overall price level in the economy. This effect is however much stronger for prices of consumer services, in particular for prices of recreation and culture and hotel and restaurants.

Keywords:

price level, tourism activity, panel data models, small open economies, European Union.

JEL Classification: C33, E31, L83

INTRODUCTION

Tourism literature differentiates among three broad types of tourism externalities: economic, environmental and sociocultural. As a recent survey on tourism-led-growth hypothesis suggests that higher economic growth is indeed a positive economic externality of tourism activity in host countries (Brida and Pulina, 2010), the challenge for an economy becomes how to strike a balance between tourism activities and negative externalities they produce. In other words, the key challenge is how to make tourism activity sustainable given its negative externalities. According to Malledu (2013), positive economic externalities of tourism experienced by host communities or countries include: improved local economy and employment prospects, increased income levels and standard of living, improved tax revenues and larger investments in infrastructure and public transportation of host countries. The literature also regards these positive economic externalities as channels through which tourism boosts long-term economic growth (Andriotis, 2002, Blake et al., 2006, Sakai, 2009, UNWTO, 2009). On the other hand, the list of negative economic externalities is much shorter and it encompasses the increase in prices of goods, services, land and housing (Malledu, 2013). When compared to negative environmental and sociocultural externalities such as pollution, disruption of natural habitat, congestion and increased crime, negative economic externalities may seem quite negligible. However, if a host country is relatively small and its economy is heavily dependent on tourism, higher price levels arising from tourism activity could become a permanent and nation-wide phenomenon affecting the lives and welfare of all inhabitants.

Theoretical underpinnings for the influence of tourism on price levels are derived by several authors including Copeland (1991), Chi-Chur et al. (2006), and Nowak and Sahli (2007). Using a general equilibrium framework Copeland (1991) demonstrates that an increase in the number of foreign visitors will increase residents´ welfare only if it is preceded by an increase of prices of non-tradables. Chi-Chur et al. (2006), who study the effects of tourism on welfare in a dynamic specific-factor model with capital accumulation, conclude that the price of non-tradables permanently increases above its reference value after an increase in tourism spending. Nowak and Sahli (2007) report that an increase in tourism demand in a small island economy has an immediate impact on prices of tourism leisure products and services, which in turn might have an ambivalent net effect on overall welfare of residents. Hazari and Ng (1993) suggest that an increase in prices of non-tradables in a host country can also be caused by monopoly power of

domestic suppliers. In the presence of international tourism demand, goods and services that are normally non-tradable become partially tradable. However, the prices of these “tradables” are not determined in the international market, but in the local market thus giving rise to monopolistic position of domestic suppliers.

Empirical studies investigating the effect of tourism demand on prices are quite limited and mostly restricted to surveys of residents’ perception (Milman and Pizman, 1988; Ross, 1992) and computational general equilibrium models which assess the overall impact of tourism on main macroeconomic variables and net welfare (Adams and Parmenter, 1995; Dwyer et al., 2000, 2004, Narayan, 2004; Gooroochurn and Sinclair, 2005). Both types of studies concur that tourism activity indeed leads to higher prices in host countries. However, survey-based studies do not entail the objective measure of the price level in host communities or countries,and computational general equilibrium models do not test directly the available data, but simulate economic outcomes using behavioral equations. In addition, both approaches focus the analysis on a single country, thus disregarding cross-country comparisons which enable us to infer whether price levels are higher or lower than they should be given country-specific characteristics. Both approaches also fail to control for various other factors that might have contributed to increased prices of goods and services in host economies.

The main goal of this paper is to empirically investigate whether tourism activity has an impact on the price level in host countries. To the best of our knowledge, this is the first study that uses an econometric approach in order to assess the influence of tourism activities on the price level of host countries. Thereby, we differentiate between the general price level, the price level of consumer goods, the price level of consumer services, and the price level of products and services that are the object of tourism demand (i.e. hotels and restaurants, transportation, recreation and culture, and food and beverages). Our sample includes 13 new European Union member states and two candidate countries (Montenegro and Turkey). Our sample therefore includes both small economies heavily dependent on tourism revenues (such as Croatia, Cyprus, Malta, and Montenegro) and other countries that do not specialize in tourism. Using panel data models and controlling for various factors influencing price levels, we show that more intensive tourism activity indeed produces higher general price level. In line with theoretical predictions, the

price increase is particularly pronounced in consumer services, most notably in prices of recreation and culture, and hotels and restaurants.

The rest of the paper is organized as follows. The second section presents the data and stylized facts concerning the relation between tourism activity and price levels. The third section discusses the empirical model and methodology issues, while section four provides an overview of empirical results. The last section concludes the paper.

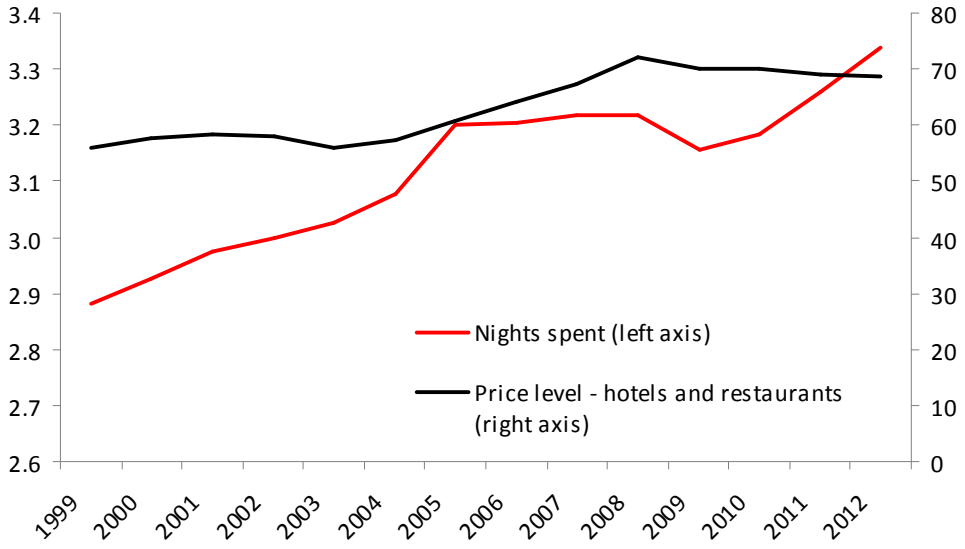
STYLIZED FACTSAND DATA

Stylized facts

When compared to the European Union average, in the period between 1999 and 2012 new EU member states and EU candidate countries have experienced a significant cumulativerise in the price levels, up by 6.6 percent. Naturally, GDP and national income growth should be considered as prime sources of inflated prices, as they push up aggregate demand, and stronger aggregate demand in the presence of inelastic supply leads to higher prices of goods and services. We,however,argue that besides theseapparent determinants, there may also exist another driver of price levels in the countries examined - one of tourism.

Together with the price level, tourism in new EU member states and EU candidate countriesalso recorded a more-or-less steady increase in the last 15 years. In the 1999-2012 period, nights spent per thousand inhabitants increased by 15.9 percent, while the share of revenues from tourism in GDP marked an impressive increase amounting to 31 percent. This increase in tourism demand led to a similar trend in prices of services that are the object of tourism demand, such as prices of hotels and restaurants (up by 23 percent) and recreation and culture (up by 24.9 percent). Figures 1 and 2 show both the upward trend in nights spent per thousand inhabitants and the increase in the price level of hotels and restaurants (Figure 1) and recreation and culture (Figure 2). The rise in nights spent per thousand inhabitants expectedly exceeded the rise in prices, because the supply of those services partially succeeded to meet growing tourism demand. However, there is still reason to believe that a part of the price increase is directly due to surging foreign tourists demand for limited quantities of domestic products and services, transforming non-traded goods and services into tradables, and pushing up the prices.

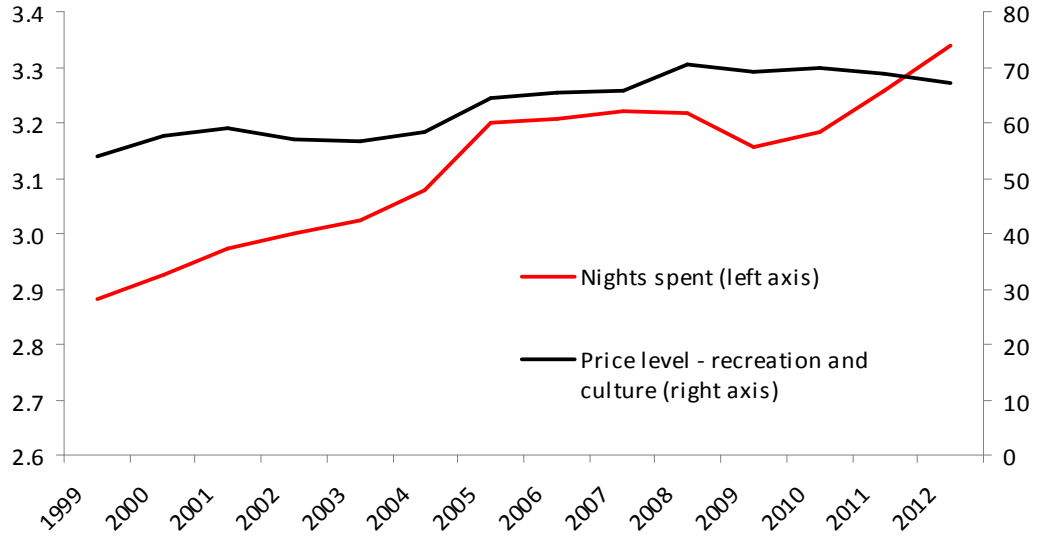
Figure 1.Nights spent per thousand inhabitantsand the price level for hotels and restaurants



Note: values are averages of the 15 countries.

Source: Eurostat and authors' calculations.

Figure 2. Nights spent per thousand inhabitantsand the price level for recreation and culture

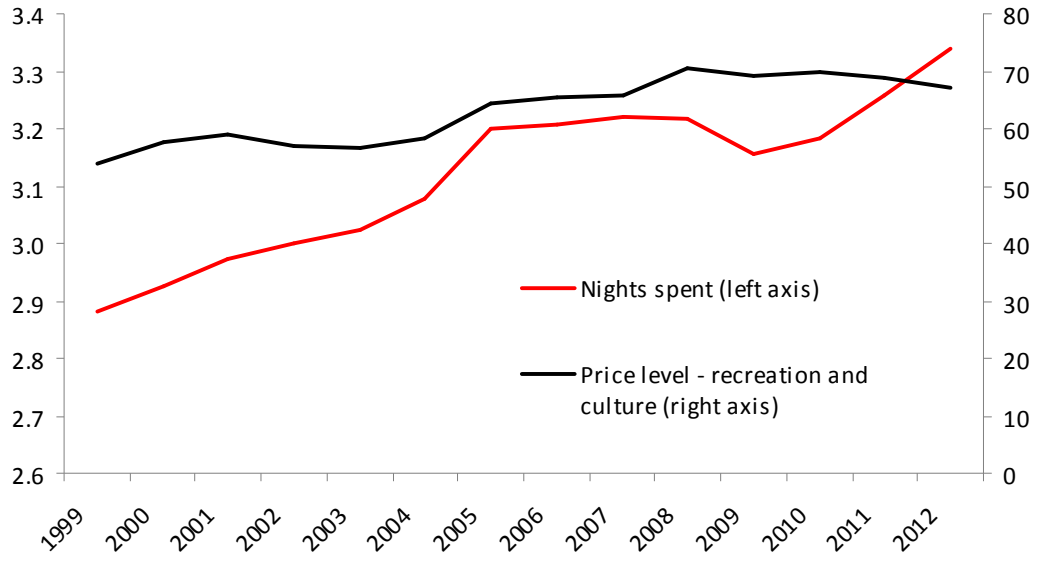


Note: values are averages of the 15 countries.

Source: Eurostat and authors' calculations.

Moreover, it seems that the increase of the importance of tourism in new EU member states and EU candidate countries might have contributed to the increase in the overall price level too, on top of the trivial influence stemming from hotels, restaurants, recreation, culture, and other tourism-related sectors. Figure 3 presents how the total price level moved together with tourism, suggesting that there might be arguments in favor of this hypothesis. As there are a number of countries with high tourist intake in our sample, it is possible that the impact of tourism on prices could be reflected in the overall price level.

Figure 3. Nights spent per thousand inhabitantsand price level for total GDP

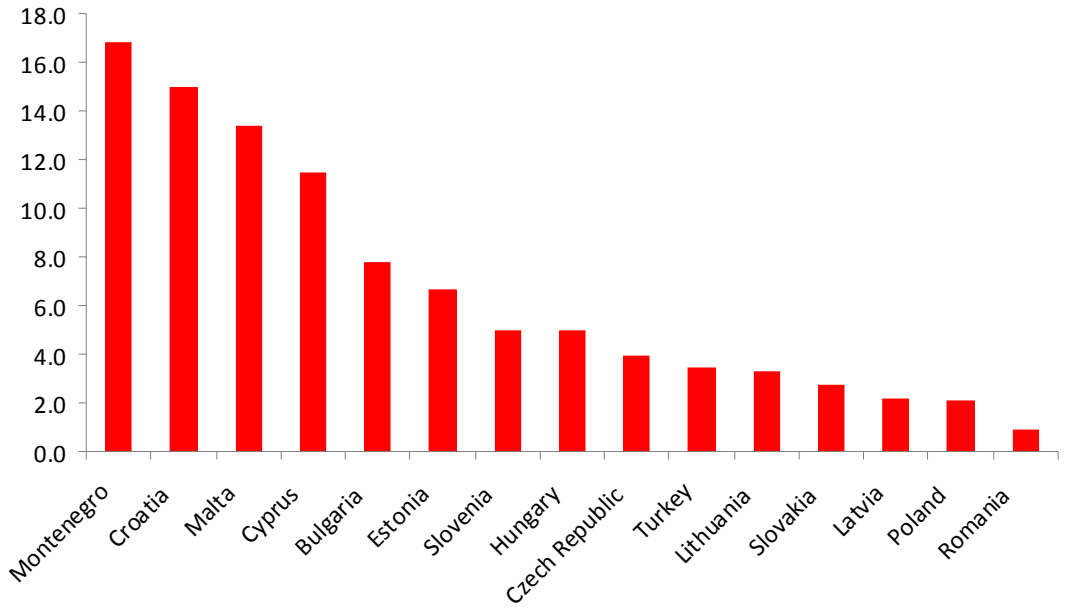


Note: values are averages of the 15 countries.
Source: Eurostat and authors' calculations.

Countries in our sample range from Montenegro that has the highest share of tourism revenues in GDP out of all countries explored, almost 17 percent. It is followed by Croatia with 15 percent, Malta with 13.4 percent and Cyprus with 11.4 percent. These are the dominant tourism forces in our sample. At the same time, these four countries can also be classified as small open economies. At the other end of the sample stand Latvia, Poland, and Romania with less than 2.2 percent of tourism revenues in GDP (Figure 4). Other countries are somewhere in between, but besides the four forces already mentioned, we also add Bulgaria, Estonia, Slovenia, Hungary and

Czech Republic to the group of tourism-dominant countries because the values of their tourism variables (tourism revenues and/or nights spent per thousand inhabitants) are above median values of the whole sample. We therefore have nine tourism-dominant countries, and six countries which do not specialize in tourism (we call this group of countries "other").

Figure 4. Tourism revenues (as percent of GDP) by countries

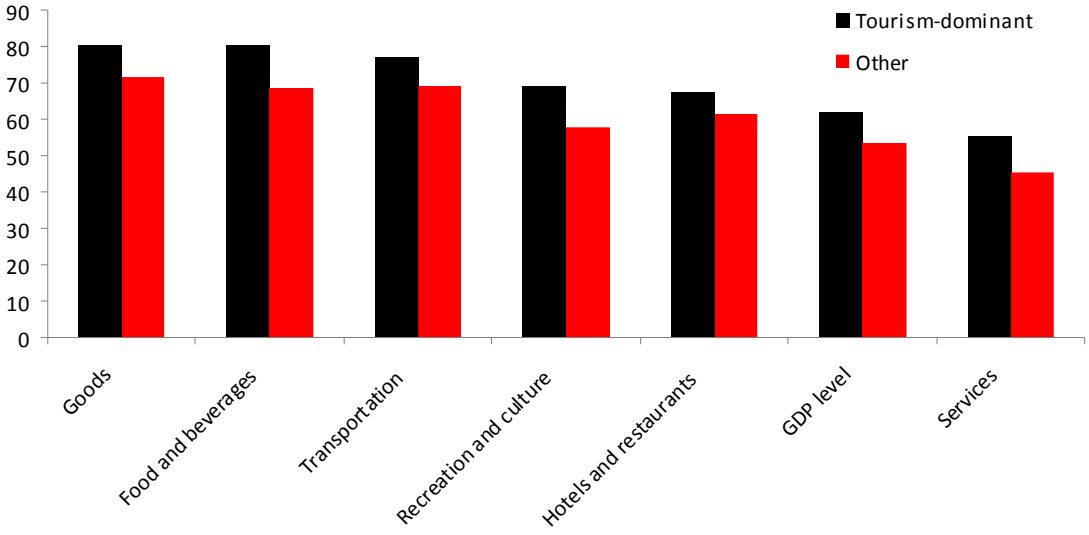


Source: Eurostat and authors' calculations.

Figure 5 presents these two groups of countries and their overall price levels, as well as price levels for certain categories: prices of consumer goods, prices of consumer services, prices of hotels and restaurants, prices of recreation and culture, prices of food and beverages, and prices of transportation. In all categories, the price levels of tourism-dominant countries are larger than the price level of "other" countries. This difference is the biggest in prices of services which are 21.9 percent more expensive in the tourism-dominant countries. Prices of recreation and culture are higher by 19.5 percent, while food and beverages are higher by 17.7 percent. The overall price level is by as much as 16.6 percent above the price level in "other" countries. Prices of goods are higher by 12.6 percent, of transportation by 11.6 percent and of hotels and restaurants by 10 percent. Naturally, these discrepancies in price levels shown in Figure 5 have other explanations besides just tourism, with the level of national income being the most obvious one. In the following two sections we intend to empirically ascertain whether after we control for other

factors that commonly exhibit an influence over the price levels, strong tourism activity can still have an impact on price levels.

Figure 5. Price levels by categories and by two groups of countries (tourism-dominant and "other")



Note: price levels are averages of the countries that belong either to the tourism-dominant group of countries or to the group of countries where tourism is not dominant ("other").

Source: Eurostat and authors' calculations.

Data

Our sample consists of 13 new member state of European Union (Bulgaria, Croatia, the Cyprus, Czech Republic, Estonia, Latvia, Lithuania, Hungary, Malta, Poland, Romania, Slovakia, and Slovenia) and two candidate countries (Montenegro and Turkey). With the exception of Poland and Turkey, all other sample countries canbe described as small open economies. Montenegro, Croatia, Malta and Cyprus can also be characterized as tourism dependent countries, as the share of tourism receipts in those countries exceeds 10 percent of GDP. In addition, when compared to the entire sample, Bulgaria, Estonia, Slovenia, Hungary and Czech Republic also have a pronounced specialization in tourism, as their share of tourism receipts in GDP and number of nights spent per thousand inhabitants are above median values of the whole sample.

Our data set includes annual observations ranging from 1999 to 2012. As a dependent variable we use price level indices for individual countries provided by the Eurostat. Due to the homogenous methodology of calculation, Eurostat's price level indices are comparable across countries, which enable us to use these data in panel data framework in order to investigate whether stronger dependence on tourism might result in higher price levels in a host country. We use the following price level indices: overall price level index (GDP price level index), consumer goods price level index, food and beverages price level index, consumer services price level index, price level index of recreation and culture, transportation, and hotel and restaurants services. As a proxy for tourism specialization and tourism dependence, we use the share of hotels and restaurants in total gross value added. As far as control variables are concerned, we use GDP per capita in euros, as a measure of national income. We also use the measure of productivity of an economy which is derived as a ratio of gross domestic product in constant euros and total number of employed persons defined by the Labour force survey. As a measure of fiscal dominance, we use the ratio of gross public debt in total GDP. The source of GDP, productivity and public debt data is also Eurostat. Finally, we use a dummy for EU entry in order to control for possible changes in price levels that occurred after the economies joined the EU. Price levels, GDP per capita and productivity data are expressed in logarithms, while public debt and the share of gross value added of hotels in restaurants are expressed in percentages.

EMPIRICAL MODEL AND METHODOLOGY ISSUES

Our empirical model describes the price level using determinants of prices already recognized in the literature, and the measure of tourism dominance in a country. We write our empirical model in the following form:

$$PL_{it} = \alpha + \beta_1 TOURISM_{it} + Z_{it} + \varepsilon_{it} \quad (1)$$

where $PL_{it}$is the price levelof country iin year t, $TOURISM_{it}$is the measure of tourism dominance, proxied by the share of gross value added of hotels and restaurants in total value added, and $Z_{it}$is a set of control variables. In order to examine the potential influence that tourism dominance can

exert on prices of various types of goods and services, we model not only the general price level, but also more disaggregated price levels, the price level of consumer goods and the price level of consumer services. Moreover, we also examine the level of prices of goods and services which are the object of tourism demand. Our dependent variable therefore ranges from the national price level to the price level of consumer goods and of consumer services, price levels of food and beverages, transportation, recreation and culture, and hotels and restaurants. The coefficient β_1 captures the effect of tourism dominance on the price level; it measures how much a strong and growing tourism sector adds to the rise in prices after controlling for other factors. As controls, we use the income level, productivity, EU entry, trade openness, and government debt.

Our extended model can be written like this:

$$PL_{it} = \alpha + \beta_1 TOURISM_{it} + \beta_2 GDP_{it} + \beta_3 PRODUCTIVITY_{it} + \beta_4 EU_{it} + \beta_5 OPENNESS_{it} + \beta_6 DEBT_{it} + \varepsilon_{it} \quad (2)$$

The income level (GDP_{it}) is expected to have a significant, positive, and large effect, as the countries in the sample experienced high GDP per capita growth rates in the period examined. Productivity ($PRODUCTIVITY_{it}$) on the other hand should have a negative influence on prices, because increased productivity makes both products and services cheaper. The EU entry (EU_{it}) serves a dual purpose as it reflects both the effect of increasing market competition that is supposed to drive prices down, and the effect of convergence to Eurozone interest rates and easier access to the international capital and money market that is also supposed to have a negative effect on prices. Trade openness ($OPENNESS_{it}$) is another variable expected to have a negative effect on prices, as the more a country imports and exports, the more its market competition gets tighter, eventually driving down prices. Moreover, trade openness assumes either lower or non-existing barriers to trade, which in turn leads to lower prices of goods on the domestic market. We also include a measure of fiscal dominance ($DEBT_{it}$), by using government debt as percentage of GDP. In countries where fiscal dominance is more prevalent, government consumption tends to have a larger share in aggregate consumption, which in turn can stimulate the aggregate demand and causes prices to rise.

We estimate the empirical model presented by equation 2 using econometric methodsthat fit regression models to panel data. We estimate seven different models that differ only by its dependent variable, using both fixed and random effects. Later we test for correlation between individual effects and the regressors using the Hausman test. The null hypothesis of the Hausman test argues that there is no correlation, meaning that in the case in which we reject the null, the random effects estimator is inconsistent but the fixed effects estimator is consistent and preferred, although it is usually less inefficient.

EMPIRICAL RESULTS

Table 1 presents the panel data models for seven different measures of price levels using the fixed effect estimator, while Table 2 summarizes the same estimates obtained by applying the random effect estimator. Both estimators yield very similar results with regards to size and the sign of coefficients and their statistical significance. However, Hausman test results suggest that the fixed effect model for the overall price level is preferred over the random effect model. In case of the remaining six models,the Hausman test prefers random effect models.

The results from both types of models actually suggest that the larger the dependence on tourism, the higher the overall price level, the price level of consumer services, hotels and restaurants, and recreation and culture. At the same time, estimates obtained from both random and fixed effects models suggest tourism dependence does not increase the price level of consumer goods and the price level of food and beverages, which is an expected outcome. Prices of tradables (consumer goods in general and prices of food and beverages in particular) are determined on international markets, which suggests that countryspecific factors tend to have a milder or more limited influence over them. This conclusion is actually supported by the size of income and productivity coefficients from our models which indicate that prices of goods and food and beverages are less influenced by the level of national income and productivity when compared to the prices of non-tradables (services).

Fixed effects estimates of the general price level model suggest that an increase of the share of hotels and restaurants in total gross value added by one percentage point leads to an increase in total prices by 0.75 percent (Table 1). The estimated coefficient is quite small, but it is statistically significant. When interpreting, one has to keep in mind that the share in total gross value added of hotels and restaurants in tourism dominant countries is multiple times larger when compared to

countries that do not specialize in tourism. We can for example consider the cases of Latvia on the one hand, and Cyprus on the other. Due to the difference in the share of gross value added between two countries (Latvian and Cyprian hotels and restaurants average share in national value added amounted to 1.23 and 7.68 percent respectively in the analyzed period), the general price level in Cyprus should be 4.83percent higher as a result of tourism related activities. The effect of tourism specialization on price level is however much more pronounced with prices of services.

Table 1. Effect of tourism dominance and control variables on the price levels (fixed effects)

Dependent variable: price level	GDP	Goods	Services	Food and beverages	Hotels and restaurants	Recreation and culture	Transportation
Main effect							
Tourism dominance	0.0075 [0.020]	0.0021 [0.567]	0.0109 [0.061]	-0.0012 [0.794]	0.0185 [0.015]	0.0204 [0.001]	-0.0019 [0.686]
Controls							
Income level	0.5131 [0.000]	0.3651 [0.000]	0.5641 [0.000]	0.3883 [0.000]	0.5095 [0.000]	0.3803 [0.000]	0.3044 [0.000]
Productivity	-0.0034 [0.000]	-0.0019 [0.003]	-0.0038 [0.000]	-0.0024 [0.004]	-0.0040 [0.003]	-0.0020 [0.048]	-0.0015 [0.068]
EU entry	-0.0089 [0.063]	-0.0112 [0.043]	-0.0014 [0.868]	-0.0171 [0.015]	-0.0143 [0.208]	0.0072 [0.411]	0.0080 [0.260]
Trade openness	-0.0005 [0.000]	-0.0003 [0.018]	-0.0009 [0.000]	-0.0001 [0.761]	-0.0005 [0.041]	-0.0004 [0.032]	-0.0003 [0.075]
Fiscal dominance	0.0004 [0.003]	0.0003 [0.048]	0.0010 [0.000]	0.0010 [0.000]	0.0000 [0.919]	0.0003 [0.179]	0.0001 [0.742]
Diagnostics							
Number of observations	179	177	177	177	177	177	177
Within *R*-squared	0.9164	0.8206	0.8014	0.7616	0.5995	0.7068	0.7399
Between *R*-squared	0.8997	0.8721	0.7637	0.7443	0.7024	0.7914	0.6719
Overall R-squared	0.8971	0.8560	0.7724	0.7537	0.6776	0.7718	0.7008

Note: A constant is also included but not reported; p-values presented in brackets; time effects are not presented owing to spaceconsiderations.

Source: authors' calcualtions.

As random effect model estimates for the price of general level of services, hotels and restaurants and recreation and culture indicate, dependence on tourism activities in an economy mainly affects the prices of services, and higher prices in services eventually result in higher overall prices(Table 2). The general price level of services thus increaseson average by 0.95 percent when the share of gross value added expands byone percentage point. This in turn means that the price level in Cyprus, ceteris paribus, is 6.13 percent higher when compared to Latvia solely as a result of predominant tourism specialization of the Cyprus economy. As expected, tourism dominance exhibits the greatest influence over the price levels of hotels and restaurants and recreation and culture, which are in effect the main objects of tourism consumption. The rise in the share of gross value added of hotels and restaurants by one percentage point increases the price level of hotels and restaurants by 1.91 percent, while the rise in the share of value added of hotels and restaurants results in 1.77rise in the price level of recreation and culture services.

Table 2. Effect of tourism dominance and control variables on the price levels (random effects)

Dependent variable: price level	GDP	Goods	Services	Food and beverages	Hotels and restaurants	Recreation and culture	Transportation
Main effect							
Tourism dominance	0.0079 [0.002]	0.0038 [0.109]	0.0095 [0.043]	0.0029 [0.417]	0.0191 [0.003]	0.0177[0.000]	0.0012 [0.719]
Controls							
Income level	0.4923 [0.000]	0.3330 [0.000]	0.5500 [0.000]	0.3902 [0.000]	0.5007 [0.000]	0.3899 [0.000]	0.2724 [0.000]
Productivity	-0.0027 [0.000]	-0.0012 [0.018]	-0.0033 [0.000]	-0.0022 [0.002]	-0.0036 [0.003]	-0.0016 [0.079]	-0.0006 [0.403]
EU entry	-0.0113 [0.017]	-0.0113 [0.030]	-0.0043 [0.611]	-0.0180 [0.008]	-0.0154 [0.161]	0.0039 [0.645]	0.0069 [0.312]
Trade openness	-0.0004 [0.000]	-0.0002 [0.063]	-0.0008 [0.000]	-0.0001 [0.587]	-0.0006 [0.015]	-0.0004 [0.037]	-0.0002 [0.080]
Fiscal dominance	0.0004 [0.010]	0.0002 [0.096]	0.0008 [0.001]	0.0010 [0.000]	0.0000 [0.985]	0.0002 [0.324]	0.0001 [0.522]
Diagnostics							
Number of observations	179	177	177	177	177	177	177
Within *R*-squared	0.9150	0.8178	0.8005	0.7598	0.5990	0.7057	0.7355
Between *R*-squared	0.9272	0.9233	0.7940	0.7828	0.7121	0.8196	0.7995
Overall R-squared	0.9199	0.8900	0.7940	0.7825	0.6857	0.7927	0.7826

Hausman test	14.66 [0.0406]	12.74 [0.0787]	7.18 [0.4103]	7.64 [0.3654]	1.92 [0.9642]	3.52 [0.8327]	1.95 [0.9627]

Note: A constant is also included but not reported; p-values presented in brackets; time effects are not presented owing to spaceconsiderations; in case we cannot reject the null hypothesis of the Hausman test, random effects is the preferred estimator.

Source: authors' calcualtions.

If we once again apply our results to the example of Latvia and Cyprus, it turns out that the level of prices of hotels and restaurants in Cyprus are on average 12.3 percent higher when compared to Latvia due to tourism dominance in Cyprus. At the same time, the price level of recreation and culture related services in Cyprus is on average 11.4 percent due to same reasons.

The estimates derived from our models also suggest that national income on average exhibits the strongest influence on all types of price levels. The income coefficients thus range from 0.27 in case of transportation prices to 0.55 in case of prices of consumer services. As noted earlier, income is more important for explaining the price level of services because goods are in general more subjected to shifts in global supply and demand. Besides income, productivity also seems to explain the variation in all types of price levels, except for the price of transportation. Once again, productivity has a larger effect on prices of services, however this time this effect is negative. EU entry has had a significant negative impact on general price level, and on the price level of all consumer goods, and on the price level of food and beverages. We associate this effect with the reduction of trade barriers upon joining the EU, which in turn leads to lowering of prices of tradable goods in a new member state. Trade openness also has an expected (negative) influence on price level, which is not limited to tradable goods, but also extends to the prices of all types of services under examination. Finally, coefficients related to the size of fiscal dominance suggest that it too has a significant and positive effect on the price level, thus suggesting that the larger the governments influence in the economy, the larger the price levels.

CONCLUDING REMARKS

We use panel data models on price levels data for new European Union member states and candidate countries in order to demonstrate that prominent tourism specialization of a small open economyincreases the general price level. As expected, this effectapplies to general price level, but is emphasized for the price level of consumer services. Estimates from the panel data model

imply that a 1 percentage point increase in the share of hotels and restaurants in total gross value added (which we use as a proxy for tourism dominance of an economy) on average results in a 0.75 percent increase in the general price level. At the same time, the same increase in the importance of the sector primarily associated with tourism also corresponds to a 0.95 percent increase in the price level of consumer services. The effect of tourism dominance is particularly strong for the price level of hotels and restaurants and recreation and culture, which are associated with tourism demand.Model estimates thus suggest that after controlling for other factors that may influence the price level, the price level of recreation and culture, and hotels and restaurants services increases by 1.91 and 1.77 percent as a result of a 1 percentage point increase in value added of hotels and restaurants.

Previous empirical studies on tourism-led-growth hypothesis suggest that higher tourism expenditures will positively affect the output of a country. This study shows that strong tourism activity also affects the prices. Thereby, the effect on prices is not limited to regions of a country which receive international tourists, as suggested by perception based surveys. Rather, in a small open economy with large tourism sector this effect is significant and noticeable on the national level. Not only does it affect the overall welfare effect of residents of a host country, it may also affect relative prices in favor of the non-tradable sector, thus affecting the patterns of allocation of production factors. The results of this study certainly offer some indication in support of that hypothesis. As tourism expenditures are likely to affect output, prices, and sectoral allocation of production factors, any attempt to assess tourism's impactmust thus in turn distinguish between individual impacts and net effects of tourism on welfare.

REFERENCES

Andriotis, K. (2002), Scale of hospitality firms and local economic development – evidence from Crete, Tourism Management, 23(4), pp. 333-341.

Blake, A., Sinclair, T.M. & Campos Soria J.A. (2006), Tourism productivity. Evidence from the United Kingdom, Annals of Tourism Research, 33(4), pp. 1099-1120.

Brida, J.G. and Pulina, M. (2010) A literature review on the tourism-led-growth hypothesis. Working Papers CRENoS, 2010, 17. ISBN 978-88-84-67-609-2.

Chao, C.-C., Hazari, B. R., Laffargue, J.-P. , Sgro, P. M.,and Yu, E. S. H. (2006), 'Tourism, Dutch Disease and Welfare in an Open Dynamic Economy', The Japanese Economic Review, Vol 57, No 4, pp 501-515.

Copeland B. (1991), Tourism, Welfare and De-industrialization in a Small Open Economy, Economica, 58, 515-29.

Dwyer, L., Forsyth, P., Madden, J., and Spurr, R. (2000), 'Economic impacts of inbound tourismunder different assumptions regarding the macroeconomy', Current Issues in Tourism, Vol 3, No4, pp 325–363.

Dwyer, L., Forsyth, P., and Spurr, R. (2004), 'Evaluating tourism's economic effects: new and oldapproaches', Tourism Management, Vol 25, pp 307–317.

Gooroochurn, N., and Sinclair, M.T. (2005), 'Economics of tourism taxation: evidence from Mauritius',Annals of Tourism Research, Vol 32, No 2, pp 478–498

Hazari, B. R. and A. Ng (1993) "An Analysis of Tourists' Consumption of Non-Traded Goods and Services on the Welfare of the Domestic Consumers", International Review of Economics and Finance, Vol. 2, pp. 53– 58.

Hazari, B. R. and P. M. Sgro (1995) "Tourism and Growth in a Dynamic Model of Trade", Journal of International Trade and Economic Development, Vol. 4, pp. 243–252.

Luzzi, G. F. and Y. Fluckiger (2003) "Tourism and International Trade: Introduction", Pacific EconomicReview, Vol. 8, pp. 239–243.

Meleddu, M.(2014) "Tourism, residents' welfare and economic choice: a literature review", Journal of Economic Surveys Volume 28, Issue 2, pages 376–399, April 2014.

Milman, A. and Pizam, A. (1988) Social impacts of tourism on central Florida. Annals of Tourism Research 15(2): 191–204.

Narayan, P.K. (2004), 'Economic impact of tourism on Fiji's economy: empirical evidence from thecomputable equilibrium model', Tourism Economics, Vol 10, No 40, pp 419–433.

Nowak, J.J., and M. Sahli (2007) Coastal tourism and 'Dutch disease' in a small island economy, Tourism Economies, 13 (1), 49–65.

Ross, G.F. (1992) Resident perceptions of the impact of tourism on an Australian city. Journal of Travel Research 30(3): 13–17.

Sakai, M. (2009), Public sector investment in tourism infrastructure, in Larry Dwyer and Peter Forsyth, International Handbook on the Economics of Tourism, eds., (Cheltenham, UK: Edward Elgar).

UNWTO, (2009), UNWTO World Tourism Barometer, Vol. 71. www.unwto.org.