

THE EFFECT OF CHINA'S TRAVEL PURPOSES ON HUNGARY'S INBOUND TOURISM

Mahlatse MABEBA¹
Xinxin XU²

Abstract: *This paper conduct an empirical research and investigate the effect of China's travel purposes on Hungary's inbound tourism during a period of uncertainty. The study takes into account the influence of the Covid-19 and Ukraine-Russia war on inbound tourism. The short-run monthly sample from January 2018 to July 2022 has been utilized to capture the uncertain period. A Poisson Regression Model has been applied to calculate the efficacy of China's travel purposes on Hungary's inbound tourism. This study finds that China's leisure and business trips have positive and significant effect on Hungary's inbound tourism. China's business trips has a large contribution to Hungary's inbound tourism than leisure trips. During the uncertain period, the Covid-19 and Ukraine-Russia war had a negative and significant effect on arrivals of tourists to Hungary. Inbound tourism from China to Hungary had contributed positively to the economic performance of Hungary's tourism sector.*

Keywords: *Travel Purpose, Inbound Tourism, Poisson Regression, China, Hungary*

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Introduction

The relations between Hungary and China have been growing in the past several years. The objective of the study is to develop an empirical model for estimating China's travel purposes to Hungary in recent years. The study applies an econometrics method called the poisson regression model. The outcomes of the study ensures that Hungary's tourism market participants be able to make future choices that will reduce intertemporal opportunity costs and increase revenues. The focus of this study involves analysing China's business and leisure trips to Hungary which have gain scholarly interests in recent years (Šebeňa, 2018).

Our understanding is that China's visits per capita for business and leisure is influenced by past visits, expected future visits, real personal disposable incomes, the real cost of travel to a destination, comparative cost of tourism, exchange rate, the binary effect of the Covid-19 pandemic, and the binary effect of Ukraine-Russia war. The significance of these indicators can guide the market participants about how to design their products and services. Trade between the two countries has become sustainable. Hungary's imports from China have increased over recent past years, while its exports to China are rather lower (Kuttor, 2022).

¹ PhD student at Corvinus University of Budapest, Email: mahlatsemabebe@gmail.com, ORCID: 0000-0003-4646-679X

² PhD student at Corvinus University of Budapest, Email: xinxinxu.tina@gmail.com, ORCID: 0000-0002-4146-6558

Given an increase of Chinese businesses in Hungary, China finds Hungary as an attractive business and tourism destination. The currency of Hungary makes the country a key consideration for Chinese tourists' destinations in the Central and East Europe (CEE) region (Rátz & Hinek, 2006). Tourism has emerged as a basic instrument for attracting foreign direct investment in the CEE and can supply the sentiments into which visitors would like to travel and do business in the region (Yeung et al., 2009). China serves as Hungary's alternative to the European Union (EU) single market in trade and foreign direct investments (Szunomár, 2015). This study provides empirical insight into how Hungary's tourism market receives an economic boost from China's visits.

Research on China's travellers and their purposes to Hungary is limited. It is important to know about Chinese people travel trends as Hungary is increasing its trade and investment with the China economy. The travel purposes of Chinese people are strongly related to their culture. However, the average Hungarian citizens hold little interest in the Chinese culture (Kasznár, 2016). As much as the knowledge about China is less familiar to the average Hungarian people in Hungary, the knowledge about Hungary is also less familiar to an average Chinese people in China. China has been able to enter the CEE market through adequate relations with Hungary (Simon et al., 2021). It is the Hungarian governing politicians that take the opportunity to benefit from the relations (Rogers, 2019). This makes the relations between the two countries less understood by an average Hungarian people. According to Kálan (2012) the interest in China by Hungarian politicians emanated from the poor economic conditions after the global financial crisis and the search for alternative sources of investments. The Hungarian government makes it its own mandate to enhance the economic, education, and cultural relationship with China.

The motivation for this study is the increasing inbound tourism from China to Hungary in recent years from both leisure and business travel purposes. It is this phenomenon that interests economists about the efficacy and contribution of China's travel to the Hungarian tourism sector. According to Johnson, Xu, and Arlt (2020) China is one of the world's largest and fastest-growing tourism markets. China's outbound tourism will continue to be a major contributor to the growth of global tourism market after the Covid-19 pandemic (Liu & Cheng, 2021). Understanding the specific travel purposes of Chinese tourists to Hungary allows policymakers, tourism boards, and businesses to tailor their strategies and offerings to better meet the demands of this valuable market. If the effects are significantly positive it can lead to increased tourist spending, job creation, and economic growth within Hungary's tourism sector. Hungary can use this study empirical insights into Chinese travelers' purposes to develop appropriate policies and regulations. There is also a lack of studies that assessed the effect of China's travel purpose on Hungary's inbound tourism during the global crises like the Covid-19 pandemic and geopolitical tensions such as the Ukraine-Russia war. Knowing how this exogenous factors influence empirical findings can help Hungary adapt its strategies and respond effectively to changing circumstances. Hence, this study fills the gap in the literature by partially estimating the endogenous effect size of China's leisure and business travel to Hungary;

and taking into account the exogenous factors that adversely affected the tourism industries of Central and Eastern European countries in recent years, that is, Covid-19 Pandemic and the Ukraine-Russia war.

In this study we utilize Poisson regression as a statistical model because inbound tourism is a count data and represents the number of occurrences of visits (Fávero & Belfiore, 2019). Inbound tourism data often involves counting the number of visitors arriving to a country. This data inherently follows a discrete and non-negative distribution, which makes the Poisson regression model a suitable choice for modelling count data (Hanley & Bhatnagar, 2022). The sample period of this study include monthly data from Januray 2018 to July 2022. The results of this study contributes to the tourism economics literature that China's travel purposes contributes positively and significantly to Hungary's inbound tourism.

The outline of the study continues with the literature review in section 1. The data and methodology are discussed and justified in section 2. The model and findings are discussed in section 3. The paper finalise with discussion of conclusion.

1. Literature review

On 3 October 1949, Hungary was among the countries that recognized the establishment of the People's Republic of China. In the same year, the diplomatic relations were enacted between the two countries. In the 1990s, an estimated 50 000 people from China used an opportunity of visa-free travel provided by the Hungarian government (Jacoby & Korkut, 2016). The developments of economic relations began with an increase in trade of goods from China to Hungary. This paved way for increasing inbound tourism from China to Hungary. The community of Chinese people became larger in Hungary than in other Central European countries.

The arrival of Chinese people in Hungary can be represented by two major events. The first event is the period between 1988 to 1992. In this period, there was an agreement between Hungary and China to offer Chinese people a visa waiver (Nyiri, 2003). One of the recent special events was the offer of the settlement bond program by the government of Hungary (Szabó et al., 2021). The program, which was open from 2013 to 2017, allowed at least 20000 foreigners to settle in Hungary and the Schengen region with possible extensions. China was one of the few countries to be on the list for its people to utilize the opportunity.

Economic sentiment is one of the key factors that attract people from many countries to make business and leisure visits as their purpose (Aharon, 2020). Every country consists of pros and cons in tourism, but it is important to report it successfully (Üngüren et al., 2015). In many countries, the locals perceive tourists as just guests, lacking the perception that other tourists are marketing for making a foreign direct investment. This can create cultural confusion about what is expected from tourists by the

locals. Investing in a combination of tourism and investment educational programmes can help clear the confusions between the locals and mainstream tourists (Cooper, 1997).

In 2011, there were 12 economic relations agreements were signed between the two countries. It was in these meetings that the Premier of China, Wen Jiabao, showed interest in meeting other CEE countries. It led to the China-CEE cooperation initiative known as the “16+1” which was officially agreed upon in 2012, in Warsaw, Poland (Semerák, 2015). Most of these economic relations yielded positive outcomes in terms of tourism, trade, and foreign direct investment (Éltető & Szunomar, 2016). Two successful economic and trade zones developed by Chinese enterprises are the Central European Trade and Logistics Cooperation Zone (CECZ) and Sino-Hungarian BorsodChem Industrial Park which are special economic zones based in Hungary (Vámos, 2017).

Stronger ties enabled Hungary to become an economic, financial, and logistics hub for China. The establishment of China’s Belt and Road Initiative (BRI) by China’s president Xi Jinping in 2013 has built up a deeper relationship with CEE countries. And Hungary was the first European country to sign the Memorandum of Understanding (MoU) with China (Yi, 2015). The 6th Summit of China and CEE countries was held in in 2017, Budapest, Hungary. The Summit brought opportunities for Chinese Small and Medium Enterprises (SMEs) to have the ‘China-CEE SMEs Matchmaking meeting’ which was organized by the Ministry of Commerce, Bank of China, the Ministry of Foreign Affairs, and Foreign Affairs of Hungary. In 2020, this made Hungary receive the largest share of China’s foreign direct investment in the CEE region. These robust economic developments paved way for increased inbound tourism from China to Hungary.

Hungary is also positive and active in promoting intercultural and people-to-people exchanges with China in the fields of tourism and arts. In 2014, the China-CEEC Tourism Coordination Center (TCC) was established in Budapest and China National Tourism Administration (CNTA) opened the first CEE-based tourism office in Budapest. China-CEEC Association of Tourism Promotion Agencies and Businesses was officially launched in 2015. The following year, a series of activities related to the Budapest International Tourism Exhibition was held. The program provides business cooperation and business trips for Chinese people to Hungary. The accessibility of a destination is also an important factor in the travel volume of a place and direct flights have a significant impact on the number of arrivals to destinations (Cetin et al., 2014). The direct airline from China to Budapest also facilitates travel activities for Chinese people. Air China opened the direct flight from Beijing to Budapest in 2015, China Eastern Airlines opened the direct flight from Shanghai to Budapest in 2019, and Hainan Airlines opened the direct flight from Chongqing to Budapest at the end of the year 2019.

Hungary is one of the CEE countries that has a large tourism industry. Tourists are just like customers in the business environment. Hence, countries that prioritize tourism should create an environment that is conducive to leisure and business tourism (Li et al., 2018). This means that the development of sectoral loyalty should be a necessary condition (Stank et al., 1999). Tourists can be as loyal as customers who purchase any other products

and services. Travelling is not like spending on daily bread, but travel customers have the power to create referrals and influence others to travel to similar destinations (Sirohi et al., 1998). In modern times, many countries compete to get traveling customers. Therefore, it is important for a country to maintain loyalty and to be consistent as possible in the provision of tourism products and services (Kim, 2008). The goal is to provide the best experience for each traveller. This can create travellers to revisit the country and refer others to the similar destination (Chi & Qu, 2008). Marketing of tourism products and services is an integral part of the tourism process. After an adequate travel experience, satisfied customers can provide a word-of-mouth form of marketing. Coupled with a quality loyalty brand, this creates perpetual visitors. According to Hughes & Allen (2005) a cultural experience by travellers enhances customer retention and referrals in tourism of CEE countries. A country can make improvements on the factors that have a high propensity to increase loyalty and increase inbound tourism.

Social networks are important to Chinese tourists. The social networking and relations that Chinese people arrange and implement tend to be misunderstood by some European countries (Hwang, 1987). One of the well-known social interactions between the Chinese people is the social network: Guanxi (关系). Guanxi is a form of social network theory in Chinese culture that describes an individual's place in the social structure and provides mutual benefit in personal and business relationships (Hammond & Glenn, 2004). Through this social capital phenomenon, Chinese people share knowledge about countries that are good for visit, settlement, or investment.

According to Chen & Chen (2004), Guanxi has been a preferred culture for people to achieve business success within China. Guanxi has a significant influence on the management of businesses by overseas Chinese people (Burt & Burzynska, 2017). The Guanxi model dominates personal and business relations. Chinese people carry this model with them wherever they go. It is a culture that initiates, builds, and ensures success through trial and error (Su & Littlefield, 2001). Beyond personal relations, the model extends into people seeking favours and rent-seeking to succeed in business.

Survey studies by Song-Agócs & Michalkó (2022) investigated how the guanxi model of networking by Chinese people influences their travel plans to Budapest, Hungary. They found that 28 percent of the Chinese tourists' respondents had friends already living in Budapest, 22 percent had relatives living in Hungary, and 31 percent had no social networks living in Hungary. These social networks created large families of Chinese communities living in Budapest. To Chinese people, it is perceived as a sign of progressive and happy life.

1.2. Empirical literature

Empirical studies that estimate count data variables are scarce in the Hungarian tourism industry. We have found that the gaps that exist are applying multivariate Poisson regression models to the count data (Muñoz-Pichardo et al., 2021). One of the gaps that exist in the current research field is empirical studies assessing factors that affect the

average inbound tourism during uncertain times (Yoon et al., 2001). Hence, we also considered studying the external factors which include the Covid-19 pandemic and the Russia-Ukraine war. The macroeconomic level of data on tourism can assist in constructing a tourism model that can guide market participants about tourism's current and expected path (Martins et al., 2017). Most empirical researchers tend to focus on the relationship between tourism and economic growth. It is agreed by various scholars that tourism generally has a positive effect on the economy (Nunkoo et al., 2019).

In a study utilizing quantile regressions, the arrival of tourists is associated with business cycle fluctuations (Brida et al., 2020). High inbounds are associated with high economic growth, and low inbounds are associated with low economic growth periods. In the long run, there is a divergence in inbound tourism between high and low-economic growth countries. Other studies find that there is a limit to the contribution of the tourism sector to economic growth (Adamou & Clerides, 2009). There is a limit to the continued increases in tourism arrivals. Scholars postulate that there is a diminishing return to inbound tourism in the long run (Seddighi & Theocharous, 2002). This is caused by growth of competitiveness between countries. The good news about the tourism sector is that the barriers to entry are low and it is less costly to start or maintain a small business.

Using the Poisson model Correia et al. (2015) found that travellers tend to demand to stay longer in Portugal after visiting a marketable destination. However, traveller's disposable incomes tend to decrease while enjoying their longer stay and then start spending similarly to the locals. Their study found that most travellers that stay for short days tend to come back at some point in the future. An interesting finding was also that creating an environment where new customers visit the country is important. This enabled a country to have a diversified category of customers, in addition to the traditional customers that usually visit the country. However, we find that the country acknowledges the factor of tourists' diversification but does not address the influence of culture in their travel purposes. Another study by Gemar et al. (2022) found a causal relationship between being a woman and the length of stay. They found that loyalty and knowledge about a country are significant factors that determine the length of stay. They emphasize more on the government's effort to perform territorial planning and management. Other scholars using quantitative methods also support this notion (Uyar et al. (2021). They found that government intervention in ecological development is important in attracting inbound tourists.

Tourism is an economic sector that is adversely affected by negative exogenous shocks. The first most recent negative exogenous event that has negatively shocked the tourism industry is the Covid-19 pandemic. Škare et al. (2020) studied the effects of shocks on tourism in several countries using panel structural vector auto-regression. They found that past pandemics tended to sharply decrease inbound tourism. After drastic falls in the pandemic cases, tourism activity immediately recovers to former levels. However, what is different about the negative effects of the Covid-19 pandemic is that it tends to persist after travel restrictions have been relaxed. Covid-19 policies between various countries have not been harmonized. Governments around the world have different policies for their citizens

and tourists (Hale et al., 2022). China is still one of the few countries that are imposing very strict monitoring of its citizens when it comes to testing for new infections (Wen et al., 2022). This has recently been placing strain on the travel decisions of people from China to other countries. A study by Wu et al. (2022) revealed that the contribution of domestic tourism to Guangdong's economy in China fell from 2.53 to 1.20 percent due to Covid-19. They found that there is a positive correlation between tourist visits and the tourism sector's contribution to the economy.

The second most recent negative exogenous event on tourism is the Ukraine-Russia war. The effect of war on tourism, occurring on the periphery of other countries, has not been empirically and precisely investigated by scholars. These events are considered geopolitical risks to tourism. According to Demiralay & Kilincarslan (2019), regional tourism industry stock indices become volatile to the rise in geopolitical risks. Considering these events tourism industry stock prices fall because of the threats and uncertainties posed by wars taking place in the region.

3. Data and Methodology

The main variables of interest are the Inbound Tourism per Capita, Leisure Travel, and Business Travel from China to Hungary. In addition, we take into consideration the external factors that dominated the Hungarian tourism market during the sample period. The endogenous control variables included are Disposable Income per Capita in China, Travel Cost from China to Hungary, Economic Sentiments of Hungary by Chinese people, and Exchange Rate of Hungarian Forint to the United States Dollar (HUF/USD). The exogenous control variables included are the Covid-19 cases and Ukraine-Russia War Dummy. The dataset of the study includes monthly data from the Hungarian Central Statistical Office, Our World in Data, and the World Tourism Organization. The monthly data starts from January 2018 to July 2022, which is a total of 55 observations. The goal of collecting this data is to capture the short-run effects and to have a closer observation of the tourism trend during the highly uncertain periods plagued by the Covid-19 pandemic and the neighbouring war in Ukraine.

The correlation between the variables is depicted in *Table 1*. It can be identified that there is a positive correlation between Hungary's Inbound Tourism per Capita [*trend*], leisure trips [*leitrip*] and business trips [*bustrip*]. These are the main independent variables of interest. Inbound tourism is directly associated with the number of tourists arrivals (Brida et al., 2020). But correlation does not necessitate causation and this study calculates the partial effect of China's trips on Hungary's inbound tourism. We add control variables which affects inbound tourism. There is also a positive association between the average disposable income [*dispinc*] of the people of China and Hungary's Inbound Tourism per Capita [*trend*]. Other control variables are negatively correlated with Hungary's Inbound Tourism per Capita. What is also interesting is that Covid-19 cases [*covid*] in Hungary and the Ukraine-Russia War [*ukwar*] are negatively correlated with Hungary's Inbound

Tourism per Capita [*trend*]. Covid-19 and the war are also negatively correlated with China's leisure travel. Negative exogenous shocks tend to be associated with decreases in inbound tourism (Škare et al., 2020; Wu et al., 2022; Demiralay and Kilincarslan, 2019). The data reveals that the Economic Sentiments [*esent*] of Hungary by Chinese people has, on average, been negative since the year 2018. The Economic Sentiment indicator is a composite economic indicator used to assess and represent the overall economic confidence about a country (Aharon, 2020). It is a valuable tool for policymakers, economists, and businesses as it provides insights into the overall mood of the Hungarian economy by Chinese people. It can be used to anticipate economic trends and potential changes in economic activity. The travel costs are directly associated with inbound tourism (Dwyer & Forsyth, 1993). It helps policymakers assess the partial net benefits from foreign tourism. We find that Travel Costs from China to Hungary [*trcost*] is negatively correlated with Hungary's inbound tourism.

Table 1. Correlation matrix

	<i>trend</i>	<i>leitrip</i>	<i>bustrip</i>	<i>dispinc</i>	<i>trcost</i>	<i>esent</i>	<i>exhu</i>	<i>covid</i>	<i>ukwar</i>
<i>Trend</i>	1.000								
<i>Leitrip</i>	0.545	1.000							
<i>Bustrip</i>	0.111	0.106	1.000						
<i>Dispinc</i>	0.609	0.770	-0.024	1.000					
<i>Trcost</i>	-0.081	-0.179	0.148	-0.137	1.000				
<i>Esent</i>	-0.244	-0.110	0.414	-0.093	0.460	1.000			
<i>Exhu</i>	-0.498	-0.472	0.085	-0.583	0.335	0.458	1.000		
<i>Covid</i>	-0.489	-0.490	0.311	-0.539	0.563	0.708	0.746	1.000	
<i>ukwar</i>	-0.325	-0.242	0.285	-0.328	0.510	0.619	0.710	0.804	1.000

Source: Developed by author

We developed an empirical model from the Real economy and Income accounts MINI (RIMINI) framework. We use this framework as a small, aggregated model that captures economic activity in Hungary's tourism sector. This model enables us to treat the tourism sector as a subsystem of the aggregate economy (Hammersland & Træe, 2014). This means that our RIMINI model is the conditional sub-model for the simultaneous determination of Inbound Tourism Per Capita. The model provides opportunities to be expanded into a large RIMINI model.

To regress the inbound tourism variable, we adopt the Poisson Regression Model (PRM) which is applicable when the dependent variable is a count data (Fávero & Belfiore, 2019). The PRM model is then applied to the cross-sectional data. The PRM demonstrates a mathematical relationship between the count variable and independent covariates (Hanley & Bhatnagar, 2022). The inbound tourism variable involves numerical data that is counted.

This makes it appropriate to apply the PRM. The Poisson distribution models the probability of inbound tourism from China to Hungary. The model enables us to include independent variables that come from a random sample and assume the independence of each covariate. The probability of inbound tourism is denoted by Equation 1.

$$Probability(Y = y_i | \mu, t) = \frac{e^{-\mu t} \mu t_i^{y_i}}{y_i!} \quad (1)$$

where μ is the Poisson distribution incidence rate, t is the unit of exposure, e is an exponential term, and y_i is the inbound tourism numbers. The specification of the PRM renders the model to be classified as non-linear. The incidence rate is determined by independent variables denoted in by the regression equation in Equation 2.

$$\mu = \text{exp}(\beta_1 X_1 + \beta_2 X_2 + \dots + \beta_k X_k) \quad (2)$$

where β_1 to β_k are the Poisson regression coefficients, which are unknown as parameters that must be estimated, and exp is the link function equivalent to the logarithm of μ . They explain the partial effects of the independent variables, X_s , on the dependent variable, μ . These coefficients are statistically more consistent than those of the Ordinary Least Squares (OLS). We can then be able to interpret the effects of these covariates in percentage form as they are in logarithms.

The PRM coefficients have an exponential conditional mean on the count variable (Consul & Famoye, 1992). They have an exponential distribution rather than a normal distribution in OLS. It is important to evaluate if the included independent variables help explain the dependent variable. This can be explained by a measure of goodness of fit called the Pseudo R-squared [R^2] which is denoted by Equation 3. The Pseudo R^2 is a value between 0 and 1, where 1 means perfect fit (Heinzl & Mittlböck, 2003). The more the value of R^2 is to 1 the greater the goodness of fit and we can have confidence in the set of independent variables that helps estimate the independent variable.

$$Pseudo R^2 = 1 - \frac{\ln \ln (L_M)}{\ln \ln (L_0)} \quad (3)$$

where L_M is the likelihood of the fitted model, and L_0 is the likelihood of the null model. An alternative, called the Wald-statistic, to the coefficient of determination is also produced by the empirical results. We can use this alternative to confirm if all the combined variables significantly explain inbound tourism (Karaalioğlu & Korkmaz, 2021). Ultimately, we use the probability value of the Wald-statistic to confirm if the overall model is statistically significant.

4. The Model and Findings

This study questions whether China's travel purposes is significant in explaining Hungary's inbound tourism. The hypothesis states whether there is a causal link between China's travel trips and the overall Hungary's inbound tourism. The first hypothesis tests the significance of endogenous factors. H₁: China's travel purposes have a significant effect on Hungary's inbound tourism. The second hypothesis tests the significance of exogenous factors. H₂: Covid-19/Ukraine-Russia war has a significant effect on Hungary's inbound tourism. Therefore we estimate the econometric regression model provided by Equation 4.

$$\ln \ln (trend) = \beta_0 + \beta_1 \ln(leitrip) + \beta_2 \ln(bustrip) + \beta_i \sum_{i=1}^6 \ln(X_i) + D(ukwar) + \varepsilon \quad (4)$$

where \ln is the logarithm function of the variables, $trend$ is the dependent variable of the study called the Inbound Tourism per Capita from China to Hungary, $leitrip$ is the Leisure Travel from China to Hungary, $bustrip$ is the Business Travel from China to Hungary, X_i is the a vector of control variables which includes 6 indicators, $D(ukwar)$ is the dummy variable representing the Ukraine-Russia War and ε is the error term.

The study finds interesting outcomes that can assist industry participants in enhancing the domestic tourism markets. *Table 2* summarizes the empirical results. The explanation of results is divided into endogenous and exogenous factors. The endogenous factors are macroeconomic indicators that can be influenced by the markets and belong to the model. Exogenous factors are indicators that cannot be influenced by the markets but should be included in the model because they influence the outcomes (Ludvigson et al., 2021). Exogenous factors captured by the model are the Covid-19 pandemic and the Ukraine-Russia war. The coefficient in the results table represents the partial effect of each variable on Inbound Tourism. We find that all the variables included in the model are statistically significant.

The *Pseudo-R²* states that 76.03 percent of the variation in Hungary's inbound tourism is explained by the included independent variable in the model. This percentage is produced by the coefficient of determination represented by the goodness of fit measure, the Pseudo R-squared (AlMuhayfith et al., 2016). The *R²* measure ranges from 0 to 1, with values closer to 1 indicating that we have confidence in the included covariates that estimate inbound tourism with precision. The Wald chi-square statistic is significantly different from zero, which means that included independent variables should not be removed from the model. The P-value for the chi-square tells us that the overall model is highly significant.

Table 2. Poisson Regression Results of Hungary's Inbound Tourism from China

Variable	Log (Inbound Tourism per Capita from China to Hungary)	Coefficient
Endogenous factors		
<i>Leitrip</i>	Log (Leisure Travel from China to Hungary)	0.01573***
<i>bustrip</i>	Log (Business Travel from China to Hungary)	0.07617***
<i>dispinc</i>	Log (Disposable Income per Capita in China)	0.01192**
<i>Trcost</i>	Log (Travel Cost from China to Hungary)	-0.0051***
<i>Esent</i>	Log (Economic Sentiments of Hungary by China persons)	0.0124**
<i>Exhu</i>	Log (Exchange Rate of HUF/USD)	0.0105**
<i>Cons</i>	Intercept	0.9472***
Exogenous factors		
<i>covid</i>	Log (Covid-19 Cases)	-0.0046***
<i>ukwar</i>	Ukraine-Russia War Dummy	-0.0735***
Summary		
<i>N</i>	Number of observations	55
<i>Wald Chi (8)</i>	Wald chi-square statistic	80.62
<i>Prob > chi2</i>	P-value for the chi-square	0.0000
<i>Pseudo-R²</i>	Goodness of fit	0.7603

Source: Developed by author. Note: * $p < 0.10$, ** $p < 0.05$, *** $p < 0.01$ denote statistical significance at the 10%, 5%, and 1% level.

Firstly, we analyse the effects of endogenous factors. We find that a percentage increase in leisure travel from China to Hungary has a positive and highly significant effect on Hungary's inbound tourism per capita by an estimated 1.57 percent. Unsurprisingly, an estimated 7.62 percent increase in Hungary's inbound tourism per capita is led by a percentage increase in business travel from China to Hungary. With the travel costs from China to Hungary increasing, Hungary's inbound tourism per capita is decreasing by an estimated 0.51 percent. Disposable income per capita in China and economic sentiments of the Hungarian economy by the Chinese people also have positive and significant effect on Hungary's inbound tourism per capita. Secondly, we analyse the effects of exogenous factors. We find that a percentage increase in Hungary's Covid-19 cases has a negative and highly significant effect on its inbound tourism per capita by an estimated 0.46 percent. In general, the decrease in tourism sector contribution to the economy had not just been Hungary's experience but also a global trend. We find that the ongoing war between the

countries so far has negatively impacted Hungary's inbound tourism more than Covid-19. The Ukraine-Russia war has a negative and highly significant effect on Hungary's inbound tourism per capita by an estimated 7.35 percent.

Conclusions

Travel purposes from China to Hungary has increased in recent years. In addition these developments, the Hungarian inbound tourism sector has been constrained by recent exogenous factors. It is the aim of this study to empirically understand the dynamics of China's travel to Hungary. This gives rise to the demand for a scientific study that assess the short-run horizon in the presence of uncertainties. We utilized monthly data with a sample period from January 2018 to July 2022. The main variables of interest are Hungary's inbound tourism per capita, which is the dependent variables. The main independent variables are leisure and business travel from China to Hungary. To estimate the causal effect of China's travel purposes on Hungary's inbound tourism we apply the Poisson Regression model.

Our empirical study found that travel purposes by the Chinese people have had a positive contribution to the Hungarian tourism sector. We can conclude that leisure and business travel of Chinese people has a causal and positive effect on Hungary's inbound tourism. Business trips from China to Hungary have a significantly large effect size than leisure trips. China's leisure trips have increased Hungary's inbound tourism by an estimated 1.57 percent. China's business trips have increase Hungary's inbound tourism by an estimated 7.62 percent. Exogenous factors are negatively correlated with inbound tourism and have a negative effect on Hungary's inbound tourism. These exogenous factors are the Covid-19 pandemic and the Ukraine-Russia war which have created elevated tourism uncertainty. This comes at a time when travel costs from China negatively affect Hungary's inbound tourism. However, the inverse effect is small but it's significant.

Hungary's economic sentiments by the Chinese people is crucial, especially from the perspective of business trips. Leisure trips by Chinese persons have been negatively correlated to travel costs, exchange rates, economic sentiments, the Covid-19 pandemic, and the Ukraine-Russia war. The war has contributed to increases in the intertemporal costs of travelling, such as increases in energy prices, which has put pressure on inflation on the European continent. Business trips have not been sensitive to these factors and have had a higher positive effect on Hungary's inbound tourism than leisure trips.

Historical developments in international affairs and trade have enabled China to continue being a key trading partner to Hungary. The Chinese people have embraced various political and economic relations between the two countries. Based on this study we find that growth in the disposable incomes of the Chinese people is beneficial to the Hungarian economy. The higher these incomes are, the higher will be the demand for travelling to Hungary. These demands should be met by a tourism supply that is competitive in Central and Eastern Europe.

The travel purposes of Chinese travellers to Hungary have become sustainable. More and more Chinese people are travelling to Hungary for leisure and business. The increasing number of private visits such as people coming for studies in Hungary is providing an opportunity for Chinese people to settle for longer stays. Hungary is one of the safest countries in Europe and this highly resonates with Chinese people's preferences. Hence, safety and security are the product and service features that must be maintained by Hungary.

Future empirical research of China's travel purposes should investigate the mediating effect of the most dominant Chinese culture, the Guanxi (关系). Guanxi is a Chinese term that refers to the concept of building and maintaining social relationships, connections, and networks, often based on mutual trust and reciprocity (Gao et al., 2010). This culture can play a significant role in the decision-making process of Chinese tourists, both when choosing a travel destination and during their travel experience (Berger et al., 2017). Efforts should be made to appropriately quantify the Guanxi which should be incorporated into the quantitative models.

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