Blue Notes: Slovenian jazz festivals and their contribution to the
economic and social resilience of the host cities

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In our article we explore the effects of two Slovenian jazz festivals on the economic resilience of the host cities: Jazzinty Novo mesto and Jazz Cerkno. Due to the small-medium size of the host cities and remoteness from the Slovenian capital Ljubljana, it is expected that the festivals would serve as important stimulators for economic and social environment in those peripheral areas. They can represent a source of sustainable growth towards the challenges of the post-industrialisation economy. Using monthly-based dataset of SORS, covering the period 2008-2015, and ex-post econometric verification methodology (time-series and panel data methods), we estimate the effects of these festivals on tourism inflows and employment. The results confirm important effects of the events on tourism and employment in both cities, but with wide variation across the years, being more present in the earlier years of the festivals, and being on a very different scale for both cities. This may be largely attributed to the “home-grown” nature of both festivals. We conclude by reflection on the importance and scientific relevance of the results for studying festivals as a resilience-enhancing mechanism for the smaller cities.

Keywords: economic impact, ex-post econometric verification, resilience, jazz, festivals, Slovenia

1. Introduction
Within the broad spectrum of ‘music festivals’, jazz festivals occupy a significant role. In the last decades this genre become a widespread phenomenon: the number of large and small jazz festivals has been intensively growing across Europe\(^1\). Several studies (i.e. Riley and Laine, 2006; Allen et al., 2011; Andersson et al., 2013) proved the viability and prospects of jazz festivals in their social, economic and cultural dimension. Besides the

\(^1\) The most used among practitioners database of festivals throughout Europe (http://jazzfests.net/) includes 1408; accessed on August 20, 2016.
social and economic values generated by any festival, jazz festivals specificity is represented by its function to preserve and transmit jazz heritage, intercultural exchange between different national jazz cultures, festivals expand the jazz target audience, and foster demand for live music (Hiller, 2016). Moreover, festivals generate a sense of community and festive atmosphere, they imply a social ritual as gathering people around a special event (Goldblatt, 1997). Jazz festivals as other typologies of festival become a creative destination (Prentice and Andersen, 2003) and experienced a boom phase (Frey, 2000). Over time, the relationship between festivals and tourism become stronger. Music festivals as all cultural festivals represent a core topic of tourism marketing: “The arts create attractions for tourism and tourism supplies extra audiences for the arts” Myerscough (1998, p. 80). Festivals are tourist attractions and generate tourist flows (i.e. Quinn, 2006; Getz, 2010). Arguably, their survival and transmission are based on the ability to create links between endogenous resources and exogenous forces (Quinn, 2005). There are very few studies dealing with the economic impact of small events. Therefore, our study investigates the importance of small-medium festivals for local economic development and as tourism attractions in Slovenia. Specifically, we explore the effects of two jazz festivals in Slovenia on the economic and social resilience of the host cities (as a combination of two reactions noted above: the ability of a regional economy to withstand external pressures; and its capacity to respond positively to external change): Jazzinty in Novo mesto and Jazz Cerkno in Cerkno. Established in different years, these festivals take place in small-medium sized cities, quite far from the Slovenia capital Ljubljana. Due to the size of the host cities and remoteness from Ljubljana, the festivals serve as important stimulators for economic and social environment of those small cities, providing them a “buffer” against unexpected shocks and a source of sustainable growth towards the challenges of the post-industrialisation economy. Using
datasets of SORS (municipality level data) and data from local tourism offices on tourism, local employment and revenues of local (municipal) companies, covering the period 2004-2015, we estimate the effects of the festivals on tourism inflows and on the economy, and by this the ability of a local economy to withstand external pressures in economic and social terms. To this end, we use an ex-post econometric verification approach (using panel data difference-in-differences modelling, complemented by time series intervention analysis approach), originating in sport economics and being used in cultural economics extremely seldom (see e.g. Skinner, 2006; Kovač and Srakar, 2013; Srakar, Vecco and Slabe-Erker, 2015). This enables us to estimate the effects of the festivals for the two Slovenian smaller cities (at least compared to European cities), enhancing the economic and social resilience of the local environment. Our main research questions, therefore, are: 1) Do the festivals support the local development (Greffe et al, 2005; Kovač and Srakar, 2013) and (to what extent) do they provide any notable effect on local tourism, employment and incomes of companies in the three cities? 2) To what extent do the festivals enhance the resilience of the two cities and in which aspects? 3) Are there any notable difference in the effects between the two cities (depending e.g. on size, geographic location, economic development, etc.)? 4) Can ex-post econometric verification as a developing method serve as a valid and appropriate tool to estimate the economic and social effects of events on the host environment and its resilience?

The remainder of the paper is structured as follows. Following this introduction, the second section presents a literature review on the concepts of jazz festival and resilience to contextualize the present research. In the third section, the two jazz festivals are introduced with their main socio-demographic characteristics. The fourth section introduces the methods and the analysis of the economic effects of these festivals on tourism inflows and on the economy. Through the application of ex-post econometric
verification approach, we identify the ability of a local economy to withstand external pressures in economic and social terms. Finally, after the discussion of the main findings, some concluding remarks on the social and economic enhancement of these two jazz festivals on the local economy are proposed in the sixth section.

2. Jazz festivals and resilience
A music festival is a “product bundling” (Choi, 2003) as in addition to the art itself, in its frame there is a significant role of places, geography and environment, way the festival is organized and presented, attractiveness for tourists, etc. Moreover, a music festival - as other festivals - possesses the unity of time, place and action, gathering a specific target audience towards which the artistic concept is addressed. Festivals act as intermediaries between producers and consumers of “aural goods” (Paleo & Wijnberg, 2006, p. 50). A variety of festival impacts have been discussed academically. Building on the classification proposed by Robertson et al. (2009), of the existing literature, to the six themes related to the evaluation of socio-cultural impacts (festivals and policy; stakeholders; social impacts and social impact measurement scales; community and networks; community and social capital; and festival directors2), we add three emerging themes strictly related to the organizational dimension of the festivals: festival quality (Tkaczynski and Stokes, 2010; Linko and Silvanto, 2011; Chen et al, 2012; Wong et al., 2015), programming (Yan et al. 2012) and marketing segmentation (Formica & Uysal 1996; Burland and Pitts 2010; Báez and Devesa, 2014).
Several scholars (Bianchini, 1996; Quinn, 2005; Crespi-Vallbona and Richards, 2007; Getz, 2009, 1991; Williams and Bowdin, 2007; Moscardo, 2007; Small, 2007; Formica,

2 Refer to Robertson et al; (2009), Getz (2010), Whitford (2013) and Brown et al. (2015) to an extensive literature on these topics.
2008; Formica and Murrmann, 1998; O’Sullivan et al., 2009; Robertson et al., 2009; Wood, E. (2009); Kavaratzis, 2011; Oakes and Warnaby, 2011; Clifton et al., 2012; Van Winkle and Woosnam, 2014) investigate the contribution of festivals in city development or regional development as a touristic attraction tool, city imagine and its marketing and the impact of local community. Getz (2010) in his large-scale literature review of 423 academic articles identifies the most commonly acknowledged festivals’ positive impacts: economic, social, cultural, personal impact, urban renewal, development and environmental impacts. Despite the relevance of jazz festivals, some scholars identified a loose of festival social significance for the local inhabitants as the clear values shift towards the economic utility dimension became more evident (Richards and Wilson, 2004; Quinn, 2006; Okech, 2011). However, cultural policy makers are convinced that festivals may contribute to the city’s image betterment, create place distinctiveness and draw visitors and tourists - all in order to generate economic benefits (Schuster, 1995; Frey, 2000; Saayman and Saayman, 2006; Quinn 2013). Much research has been done on the role that festivals play in economic development. Invariably, they are expected to foster the cosmopolitan dimension of the city (i.e. Thrane, 2002; Moscardo, 2007; Waitt, 2008) and a positive image as a destination (Schuster, 1995; Quinn, 2005; Getz et al, 2008; Johansson and Kociatkiewicz, 2011).

The importance of acknowledging jazz festivals’ impacts is well documented in the literature. Nonetheless evaluative research has, until very recently, adopted predominantly the economic impact approach (Bracalente et al., 2011; Saayman & Rossouw, 2010, 2011; Riley and Dave Laing 2006; Jones and Munday, 2004; Janeczko et al., 2002; Brown et al., 2002; Thrane, 2002). In most instances, an estimate of an aggregate measure of income and employment change attributable to the festival is used. This approach and the regional economic models on which it is related to were originally
developed to explain the effects of exogenous changes in demand on an area’s economy, and in particular, to explain the growth effects of increased spending for a region’s exports (e.g. Krikelas, 1992; Hunter, 1989). Constantly, the results are positive and are then used to make the demand for public support for the festival stronger with based evidence. However, this approach reveals some limitations as it misinterprets the benefits of arts and cultural organisations (Sterngold, 2004; Seaman, 2000) and the analysis finishes “prematurely with the estimation of local multiplier effects but without progressing one stage further and illustrating how these translate into local economic growth” (Okech, 2011, p. 187). Additionally, some key factors responsible for the inaccuracy of direct expenditure forecasts have been identified (Ramchandani & Coleman, 2012).

As stated by Holling “The resilience is not only the capacity to absorb shocks and maintain function, but it also includes a second aspect concerning the capacity for renewal, re-organization and development, to be taken into consideration for redesigning a sustainable future” (Holling, 1973, p. 17, see also, 1986, 2001). In the literature we can identify several approaches to define resilience: for some authors (Horne and Orr, 1998; Sutcliffe and Vogus, 2003) resilience derives from a return to a stable state after a perturbation; Douglas and Wildavsky (1982, p. 196) specifically defined resilience as “the capacity to use change to better cope with the unknown: it is learning to bounce back”. In a similar way, Dynes (2003) connected the concept of resilience to an emergent behaviour, based on improvisation and adaptation, while Kendra and Wachtendorf (2003) stressed the creativity in the adaptive process. Furthermore, Davies (2011) identifies three types of reactions: the ability of a regional economy to withstand external pressures, its capacity to respond positively to external change, and its long-term adaptability or learning capacity (see e.g. Lazzaretti, 2015).
Recently, some scholars pinpoint the relation between festivals and sustainability (Getz and Andersson, 2008; Getz et al., 2013; Zifkos, 2014; Bormann, 2015). This call to sustainability may be considered as part of a broader research and societal goal (see ICOMOS’ concept note, 2016). Although Zifkos (2014) identified three distinguished use of the concept of sustainable festivals (namely, as green festival, as festival’s ability to be “sustained” - meaning to survive endure as an organization, and finally how festival organisations can achieve long-term viability within their community). However, in the literature there is no reference on the relationship between the festival sustainability and the economy of the host location. Building on the concept of sustainability, rooted to the Latin word sustinere (sus: tenere) which refers to the capacity to “maintain”, “endure” or “support” (Thiele, 2013), we investigate the impact of the two festivals on the economic and social resilience of the host cities.

Festivals in small regional destinations often play an important role in tourism development and thereby in local economic development. They can be considered as good examples of the relocalisation movement: “Relocalization is a strategy to build societies based on the local production of food, energy and goods, and the local development of currency, governance and culture. The main goals of relocalization are to increase community energy security, to strengthen local economies, and to improve environmental conditions and social equity. The relocalisation strategy developed in response to the environmental, social, political and economic impacts of global over-reliance on cheap energy.” (http://www.postcarbon.org/relocalize, accessed on August 17. 2016). Relocalisation or sustainable degrowth aims at increasing resilience and wellbeing in local communities as a response to interrelated social-ecological threats emerging on a global-scale (Curtis, 2005; Hopkins, 2008; Victor, 2008; Swilling &
Annecke, 2012). The main focus is to strengthening the resilience of local communities and undercutting the need of an unsustainable development.

A scan of the literature allows us to identify five main functions that a festival can assume within the resilience framework: the festival can serve as a showcase for a city, and the destination can be branded by festival as well (Derrett, 2004). Second, the festival can serve as a creative destination as they provide an opportunity for specialization (theme, target audience, etc.). Third, festivals are attractions for visitors and are usually closely connected to tourism (for example, Getz, 1989; Frey, 2000) and may contribute to their sustainable development. Fourth, festivals “renew periodically the life stream of a community and give sanctions to its institutions” (Falassi 1987: 3). Fifth, festivals can perform a very useful community service as they enhance both group and place identity (De Bres & Davis, 2001), contribution to reinforce identities, interests and goals that are socially constructed in a relocalisation perspective.

3. The two Slovenian jazz festivals

Slovenia has eight jazz festivals which take place mostly during the summer period. As tourism attractors/drivers, festivals are organised in areas that present some cultural or natural interests. In our specific case, Jazzinty takes place since the year 2000 in smaller city of Novo Mesto. It is organized by a group of young jazz enthusiasts and provides a cultural arena gathering international jazz workshops, performances and composition awards together. Jazz Cerkno is taking place in a small and remote city of Cerkno and originates already in year 1996.

Jazz Cerkno Festival is an annual international music festival organised by Jazz Cerkno Institute. Festival events take place every May in the "old square" next to Pr Gabrijelu ("At Gabriels") bar, which also functions as the local social and musical epicentre.
Jazz Cerkno presents various international high-quality music groups and musicians from a wide variety of music genres: contemporary and avant-garde jazz can be heard alongside freely improvised music, imaginative folk music, post-rock and rock-in-opposition – mixing acoustic, electric and electro-acoustic sounds. There are concerts, jam sessions, regular workshops, various exhibitions, among them a regular exhibition of music photography. In 1996 a group of local music enthusiasts launched the festival which has gradually transformed itself into one of the most important jazz festivals held in Slovenia, next to the jazz festivals in Ljubljana and Maribor. Boštjan Cvek (1964–2015) should be mentioned as a co-founder and spiritus movens of the Jazz Cerkno and Keltika festival, respectively.

Jazz Cerkno Festival started as a domestic music event squeezed into a small but vivid room in the bar. At the beginning, the programme primarily centred around Slovene groups and performers. The big break-through in every way possible – organisational, musical and social – came in 2000 when the event moved outdoors, out of town, and under a tent. For the first time the programme gained a real international character, marked particularly by a free energetic concert by the trio Brotzmann/Ludi/Hano. In many ways the impact of the powerful trio paved the way for further considerations about the programme, the nature of the event, and its location. Finally, in 2003 the festival moved back to the town of Cerkno and for the first time took place in the "old square".

The 3-day event is well-known for its relaxed atmosphere, intimacy, good and knowledgeable crowd of 300–400 people and some local particularities.

Since 2000 the Jazzinty International Music Workshop and Festival has been taking place every August at the LokalPatriot club in Novo mesto. Foreign jazz musicians and pedagogues are invited every year to run the workshops and to play at the festival. These jazz events have become one of the main international musical events in the region of
Dolenjska. In spite of rather conventional musical programming there's also a space for more progressive performers, teachers, and concerts. The Jazzon Award is bestowed every year. The Jazzon Alpe-Adria competition is open for the composers from Slovenia, Austria and Croatia.

Figure 1: Locations of Slovenian jazz festivals

According to the framework developed by O’Sullivan, Jackson (2002), these jazz festivals cluster in the category of home-grown festivals, where a ‘home-grown’ festival is essentially small scale, bottom-up and run by one or more volunteers for the benefit of the locality. A ‘tourist-tempter’ festival is one that is aimed specifically at attracting visitors to stimulate local economic development. A ‘big-bang’ festival is essentially a marketing tool that promotes a myriad of related activities over a defined geographical

Notes: 1 – Jazz Etno Funky Festival, Koper; 2 – Jazz Cerkno; 3 – Ljubljana Jazz Festival; 4 – Veronica’s Tales, Kamnik; 5 – Jazzinty Novo mesto; 6 – Džjezz Celje; 7 – Slovenian Jazz Festival, Ravne na Koroškem; 8 – Festival Lent, Maribor.
Source: Own adaptation on the basis of European Jazz Network, [http://www.europejazz.net/jazz/festivals/si](http://www.europejazz.net/jazz/festivals/si)

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3 Three types of festival were identified: (i) ‘home-grown’; (ii) ‘tourist-tempter’; (iii) ‘big-bang’ (O’Sullivan, Jackson, 2002, p. 331).
area. Table 2 identifies the festival typologies defined for this study and summarises the characteristics of each case study area.

<table>
<thead>
<tr>
<th>Table 1: Typology of festivals: characteristics of the case study examples</th>
</tr>
</thead>
<tbody>
<tr>
<td>Festival Type 1: &quot;home-grown&quot;</td>
</tr>
<tr>
<td>Size by population</td>
</tr>
<tr>
<td>Spatial geography</td>
</tr>
<tr>
<td>Major theme</td>
</tr>
<tr>
<td>Organizing drivers</td>
</tr>
<tr>
<td>Key management group</td>
</tr>
<tr>
<td>Primary purpose for holding a festival</td>
</tr>
</tbody>
</table>

Source: O'Sullivan, Jackson, 2002, p. 331

4. Data and Methods

The present section introduces the main variables, their descriptive statistics and methods used. To reply to the research questions of our study, we paid primarily attention to the tourism flows generated, if any, by the selected jazz festivals. To this end, we follow Skinner (2006), Srakar, Vecco and Slabe-Erker (2016) and Srakar and Vecco (2016) and use a two-part methodology. Firstly, we adopt univariate interrupted time series econometric method. This implies the construction of models with the following independent variables: tourist arrivals – total and foreign, tourist overnight stays – total and foreign; and number of employed persons. Secondly, we perform robustness check.
and use models from panel data analysis (static models) to assess the impact of the events on tourism and employment.

Our data set is compiled from Statistical Office of Republic of Slovenia (SORS) data. We use data on different tourism and employment variables from January 2008 to April 2016 for 212 Slovenian municipalities. Further, for the panel data analysis we collect several municipality-level variables covering the same period. Table 1 shows short descriptive statistics of the key variables included in the time series.

Table 2: Descriptive statistics of key variables

<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tourist arrivals, Cerkno</td>
<td>100</td>
<td>901.58</td>
<td>671.02</td>
<td>56</td>
<td>2497</td>
</tr>
<tr>
<td>Tourist arrivals, foreign, Cerkno</td>
<td>100</td>
<td>359.51</td>
<td>224.87</td>
<td>30</td>
<td>1035</td>
</tr>
<tr>
<td>Tourist overnight stays, Cerkno</td>
<td>99</td>
<td>3054.99</td>
<td>2670.54</td>
<td>89</td>
<td>9481</td>
</tr>
<tr>
<td>Tourist overnight stays, foreign, Cerkno</td>
<td>100</td>
<td>1280.43</td>
<td>1029.68</td>
<td>43</td>
<td>4866</td>
</tr>
<tr>
<td>Tourist arrivals, Novo mesto</td>
<td>100</td>
<td>2378.72</td>
<td>779.17</td>
<td>1157</td>
<td>4619</td>
</tr>
<tr>
<td>Tourist arrivals, foreign, Novo mesto</td>
<td>100</td>
<td>1743.53</td>
<td>741.75</td>
<td>714</td>
<td>3897</td>
</tr>
<tr>
<td>Tourist overnight stays, Novo mesto</td>
<td>100</td>
<td>5117.16</td>
<td>2019.37</td>
<td>2402</td>
<td>10417</td>
</tr>
<tr>
<td>Tourist overnight stays, foreign, Novo mesto</td>
<td>100</td>
<td>3911.06</td>
<td>1832.70</td>
<td>1497</td>
<td>8615</td>
</tr>
<tr>
<td>Tourist arrivals, Slovenia</td>
<td>100</td>
<td>269083.40</td>
<td>107510.70</td>
<td>153320</td>
<td>630579</td>
</tr>
<tr>
<td>Tourist arrivals, foreign, Slovenia</td>
<td>100</td>
<td>174879.40</td>
<td>87980.97</td>
<td>78675</td>
<td>472625</td>
</tr>
<tr>
<td>Tourist overnight stays, Slovenia</td>
<td>100</td>
<td>767270.60</td>
<td>352661.30</td>
<td>419652</td>
<td>1789727</td>
</tr>
<tr>
<td>Tourist overnight stays, foreign, Slovenia</td>
<td>100</td>
<td>456940.70</td>
<td>255247.80</td>
<td>204831</td>
<td>1258217</td>
</tr>
<tr>
<td>Number of employed, Cerkno</td>
<td>100</td>
<td>1395.47</td>
<td>114.98</td>
<td>1234</td>
<td>1654</td>
</tr>
<tr>
<td>Number of employed, Novo mesto</td>
<td>100</td>
<td>21018.47</td>
<td>582.51</td>
<td>19979</td>
<td>22076</td>
</tr>
<tr>
<td>Number of employed, Slovenia</td>
<td>100</td>
<td>732598.90</td>
<td>30568.06</td>
<td>691511</td>
<td>798533</td>
</tr>
</tbody>
</table>

*Source*: Own calculations.

Our time series methodology consists of several steps. Dummy variables representing the periods in the months when the two festivals took place (Cerkno – May; Novo mesto – August) are introduced into the model. Ideally, a multi-equation model of impact on tourism and employment would be estimated. Unfortunately, due to missing variables it is many times impossible to estimate such a model. There typically is insufficient data on crucial explanatory variables to allow estimation of even a single multivariate equation.
As stated by Skinner (2006: 115) “the time series analysis provides a valid estimation methodology applicable to this problem”. Wold’s theorem states that any stationary series can be expressed as a self-deterministic component and a moving average of possibly infinite order (Granger, 1989: 66, in: Skinner, 2006: 116). Thus, once the employment series, or some appropriately differenced version of it, is shown to be stationary, Box-Jenkins type time series modelling (see e.g. Box and Jenkins, 1970) can be used to extract all of the systematic information from the series, leaving only a white noise residual. Furthermore, as used in Srakar et al. (2016), interrupted time series analysis can be fruitfully used to get insight into the dynamics of the net increments in tourism and employment over the years.

The Box-Jenkins time series technique consists of identifying the process, estimating the parameters of the process, and using diagnostic checks to determine if the residuals are in fact white noise (see, for instance, Enders (1995)). A dummy variable representing the month of the festival is added to the model and its effect measured. The described procedure provides information on the number of tourist arrivals and overnight stays, created by event’s performance.

However, there are some other factors besides the festivals that could have an effect on tourism during the observed period, for example, seasonal factors and business cycles. Therefore, a filtered model of Cerkno and Novo mesto tourism is estimated that exclude connections with these factors. The variables used in the filtering process, for example, dummy variables for quarters and data for a wider-region (used to proxy for the effects of the business cycle), are described in Table 2.

Table 3: Description of variables included in the filtering process

<table>
<thead>
<tr>
<th>Variable</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The Equation 1 presents the Ordinary Least Squares (OLS) model for monthly filtered number of tourist arrivals. The equations are similar for other dependent filtered variables. The coefficients represent the average number of tourists, overnights or employed persons for each quarter or season of the period. Variables for Slovenia are added to adjust for cyclical effects. The OLS model’s residuals are Cerkno and Novo Mesto tourists, overnights or number of employees, depending on the used dependent variable filtered to seasonal and cyclical effects.

\[ TA = \alpha Q1 + \beta Q2 + \gamma Q3 + \delta Q4 + \theta TAV + \varepsilon_t \]  

To capture the systematic time relationship in the filtered dependent variables we perform an interrupted time series analysis. The festivals occur at several points over the period of the time series. Moreover, the study seeks to find out whether these events have any effect on the economic measures during the events and directly after they occurred for each respective month of the event. As the interrupted time series, in general, does not require stationarity of the dependent variable of used in the original (filtered) series.
The general form of interrupted time series’ regression model assumes the following form (Simonton, 1977a, b; Huitema and McKeen, 2000; Linden and Adams, 2011, quoted in Srakar, Vecco and Slabe-Erker, 2016):

\[ TA_t = b_0 + b_1 T + b_2 X_t + b_3 XT_t + \varepsilon_t \]  

(2)

Here \( TA_t \) is the aggregated outcome variable measured at each equally-spaced time-point \( t \), \( T \) is the time since the start of the study, \( X_t \) is a dummy (indicator) variable representing the intervention (pre-intervention periods 0, otherwise 1), and \( XT_t \) is an interaction term. The coefficients of interest will be \( b_2 \) – the effects of interventions. It is also expected that the interaction term \( XT_t \) will be insignificant denoting that the effects of the festivals on tourism were only of short-term.

Finally, we perform a panel data analysis, using linear panel data models (fixed and random effects). To this end, we estimate the following difference-in-differences (DID) model:

\[ var_{i,j,t} = \beta_0 + \beta_1 \text{cerkno}_{j,t} + \beta_2 \text{novomesto}_{j,t} + \gamma z_{i,j,t} + \beta_3 m_{j,t} + \omega_j + \varepsilon_{i,j,t} \]  

(3)

The treatment effect, namely, in this paper the occurrence of two festivals, in municipality \( j \) at time \( t \), is represented by the terms \( \text{cerkno}_{j,t} \) and \( \text{novomesto}_{j,t} \) the corresponding coefficients \( \beta_1 \) and \( \beta_2 \) reflect the DID-estimator. Dependent variable \( var_{i,j,t} \) simply denotes the used tourism and employment variables. Vector \( z \) captures municipality-level determinants of an economic situation such as revenues of companies (in logarithms), infrastructure and premature mortality. The term \( m_{j,t} \) captures GDP per capita on a regional level as a macroeconomic control. Municipality fixed effects, \( \omega_j \) take into account unobserved time-invariant location factors. \( \varepsilon_{i,j,t} \) is the error term. As the
treatment variable only varies at the municipality level, standard errors are clustered. The regressions were estimated with random effects, as suggested by the results of the Hausman test.

5. Results

This section firstly presents the results of interrupted time series analysis of tourism variables for the festival Jazz Cerkno (Table 3). As it can be seen, the results of this festival in terms of new tourism were more visible in earlier years (included in our analysis), namely, in 2008, 2009 and 2010. Interestingly enough, the coefficients on interactions with time are also significant which means that the effects were not only short term, but significantly contributed to the tourism visits to Cerkno. We can estimate ca. 300-1,000 new visitors due to the festival at that time, of which ca. 200-600 were foreigners. Also, we can estimate ca. 1,000-5,000 additional tourism overnight stays at that time of which ca. 600-3,000 were by foreign tourists. Also, in 2014, an additional positive impact can be seen in terms of 400 new visitors and 1,500 new overnights stays. Again, this effect seemed to last for a longer time.

Table 4: Results of interrupted time series analysis, tourism, Jazz Cerkno

<table>
<thead>
<tr>
<th></th>
<th>Tourist arrivals, total</th>
<th>Tourist arrivals, foreign</th>
<th>Tourist overnight stays, total</th>
<th>Tourist overnight stays, foreign</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coef.</td>
<td>t</td>
<td>P&gt;</td>
<td></td>
</tr>
<tr>
<td>May 2008</td>
<td>998.29</td>
<td>7.00***</td>
<td>615.63</td>
<td>14.71***</td>
</tr>
<tr>
<td>May 08 × time</td>
<td>192.28</td>
<td>4.35***</td>
<td>114.13</td>
<td>9.31***</td>
</tr>
<tr>
<td>May 2009</td>
<td>529.50</td>
<td>4.67***</td>
<td>325.08</td>
<td>7.80***</td>
</tr>
<tr>
<td>May 09 × time</td>
<td>16.22</td>
<td>0.88</td>
<td>13.84</td>
<td>2.27**</td>
</tr>
<tr>
<td>May 2010</td>
<td>297.21</td>
<td>2.79***</td>
<td>193.75</td>
<td>3.69***</td>
</tr>
<tr>
<td>May 10 × time</td>
<td>20.22</td>
<td>1.01</td>
<td>17.79</td>
<td>1.85*</td>
</tr>
<tr>
<td>May 2011</td>
<td>41.57</td>
<td>0.32</td>
<td>-42.45</td>
<td>-0.65</td>
</tr>
<tr>
<td>May 11 × time</td>
<td>20.37</td>
<td>1.01</td>
<td>11.68</td>
<td>0.88</td>
</tr>
<tr>
<td>May 2012</td>
<td>73.86</td>
<td>0.48</td>
<td>0.91</td>
<td>0.01</td>
</tr>
<tr>
<td>May 12 × time</td>
<td>1.56</td>
<td>0.05</td>
<td>-8.02</td>
<td>-0.52</td>
</tr>
<tr>
<td>May 2013</td>
<td>-114.94</td>
<td>-0.49</td>
<td>63.87</td>
<td>0.68</td>
</tr>
</tbody>
</table>
Table 4 displays the results for Jazzinty festival in Novo Mesto. As in the previous analysis, significant results can be mainly identified in years 2008, 2009 and 2010, being followed later only in 2015. Although the numbers are on a significantly lower scale than those in Cerkno, but they have grown by 2015. Approximately 100-200 new visitors have come due to the festival of which more than 200 were foreigners. This apparent paradox can clearly be explained by the effects of crowding out - apparently foreign visitors have overcrowded the local inhabitants. A similar trend can be observed in the number of overnight stays: approximately 1,000 new overnight stays, all foreign ones happened in 2008 and 2009 due to the festival.

In 2015, a significant rise in the number of new visitors and overnight stays can be noticed: ca. 400 new visitors (only half foreign) and ca. 1,100 new overnight stays (half of them foreign). Interestingly, again we can observe a crowding out effect visible in the negative level of the coefficient on the interaction term.

Table 5: Results of interrupted time series analysis, tourism, Jazzinty Novo Mesto
Table 5 presents the results for the employment variables for both festivals. Similarly as earlier identified, the main effects can be observed for both festivals in years 2008, 2009 and 2010. Later, even negative effects can be noticed, probably to be attributed to some external factors like the financial crisis (although we control for cyclical effects in the starting OLS regression). Then as well/similarly, for Cerkno we are able to find strong positive effects in the year 2014.

Table 6: Results of interrupted time series analysis, employment, both festivals

<table>
<thead>
<tr>
<th>Nr of employed, Cerkno</th>
<th></th>
<th></th>
<th></th>
<th>Nr of employed, Novo mesto</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Coef.</td>
<td>t</td>
<td>P&gt;</td>
<td>t</td>
<td></td>
<td>Coef.</td>
<td>t</td>
</tr>
<tr>
<td>May 2008</td>
<td>-17.41</td>
<td>-2.31</td>
<td>**</td>
<td>-194.71</td>
<td>-4.37</td>
<td>***</td>
<td></td>
</tr>
<tr>
<td>May 08 × time</td>
<td>-1.27</td>
<td>-0.92</td>
<td></td>
<td>-57.82</td>
<td>-8.51</td>
<td>***</td>
<td></td>
</tr>
<tr>
<td>May 2009</td>
<td>40.70</td>
<td>3.35</td>
<td>***</td>
<td>219.32</td>
<td>4.21</td>
<td>***</td>
<td></td>
</tr>
<tr>
<td>May 09 × time</td>
<td>9.48</td>
<td>7.29</td>
<td>***</td>
<td>36.04</td>
<td>4.93</td>
<td>***</td>
<td></td>
</tr>
<tr>
<td>May 2010</td>
<td>23.55</td>
<td>3.10</td>
<td>***</td>
<td>-40.03</td>
<td>-1.36</td>
<td></td>
<td></td>
</tr>
<tr>
<td>May 10 × time</td>
<td>7.35</td>
<td>4.00</td>
<td>***</td>
<td>6.13</td>
<td>1.09</td>
<td></td>
<td></td>
</tr>
<tr>
<td>May 2011</td>
<td>-37.74</td>
<td>-4.81</td>
<td>***</td>
<td>-70.78</td>
<td>-1.69</td>
<td>*</td>
<td></td>
</tr>
<tr>
<td>May 11 × time</td>
<td>-10.97</td>
<td>-7.83</td>
<td>***</td>
<td>-84.13</td>
<td>-20.20</td>
<td>***</td>
<td></td>
</tr>
<tr>
<td>May 2012</td>
<td>-5.60</td>
<td>-1.02</td>
<td></td>
<td>90.71</td>
<td>2.63</td>
<td>***</td>
<td></td>
</tr>
<tr>
<td>May 12 × time</td>
<td>5.24</td>
<td>5.21</td>
<td>***</td>
<td>53.61</td>
<td>13.81</td>
<td>***</td>
<td></td>
</tr>
<tr>
<td>May 2013</td>
<td>-31.25</td>
<td>-4.55</td>
<td>***</td>
<td>-21.91</td>
<td>-0.53</td>
<td></td>
<td></td>
</tr>
<tr>
<td>May 13 × time</td>
<td>-4.05</td>
<td>-4.51</td>
<td>***</td>
<td>19.57</td>
<td>4.60</td>
<td>***</td>
<td></td>
</tr>
<tr>
<td>May 2014</td>
<td>15.89</td>
<td>3.14</td>
<td>***</td>
<td>1.35</td>
<td>0.04</td>
<td></td>
<td></td>
</tr>
<tr>
<td>May 14 × time</td>
<td>-0.54</td>
<td>-0.67</td>
<td></td>
<td>35.23</td>
<td>8.15</td>
<td>***</td>
<td></td>
</tr>
<tr>
<td>May 2015</td>
<td>-39.58804</td>
<td>-4.84</td>
<td>***</td>
<td>-104.86</td>
<td>-8.09</td>
<td>***</td>
<td></td>
</tr>
<tr>
<td>May 15 × time</td>
<td>-1.77</td>
<td>-1.86</td>
<td>*</td>
<td>-14.95</td>
<td>-9.13</td>
<td>***</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>87.74</td>
<td>179.63</td>
<td>***</td>
<td>-234.36</td>
<td>-20.96</td>
<td>***</td>
<td></td>
</tr>
</tbody>
</table>

Observations 100 100
Finally, as a robustness test, we present the results of the panel data analysis. Here, the effects of both festivals are negligible, if any. This might be attributed to several causes:

a) a general perspective not taking into account the different effects (positive and negative) over the studied period; b) the effect of different confounders, including the regional effects; c) different type of estimator and used comparison across all the Slovenian municipalities.

Table 7: Results of panel data analysis, random effects models, both festivals

<table>
<thead>
<tr>
<th></th>
<th>Coef.</th>
<th>t</th>
<th>P&gt;t</th>
<th>Coef.</th>
<th>t</th>
<th>P&gt;t</th>
<th>Coef.</th>
<th>t</th>
<th>P&gt;t</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Tourism arrivals</strong></td>
<td></td>
<td></td>
<td></td>
<td><strong>Tourism overnight stays</strong></td>
<td></td>
<td></td>
<td><strong>Nr of employed</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Jazz Cerkno</td>
<td>-62.63</td>
<td>-0.06</td>
<td></td>
<td>-613.36</td>
<td>-0.19</td>
<td></td>
<td>13.14</td>
<td>0.07</td>
<td></td>
</tr>
<tr>
<td>Jazzinty NM</td>
<td>1821.07</td>
<td>1.67</td>
<td>*</td>
<td>5374.38</td>
<td>1.63</td>
<td></td>
<td>-10.30</td>
<td>-0.05</td>
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<tr>
<td>LogIncomes</td>
<td>319.75</td>
<td>2.87</td>
<td>***</td>
<td>1170.65</td>
<td>3.50</td>
<td>***</td>
<td>131.55</td>
<td>11.38***</td>
<td></td>
</tr>
<tr>
<td>Gross Wages</td>
<td>-2.35</td>
<td>-4.63</td>
<td>***</td>
<td>-5.81</td>
<td>-3.79</td>
<td>***</td>
<td>-0.37</td>
<td>-7.60***</td>
<td></td>
</tr>
<tr>
<td>Time Trend</td>
<td>14.76</td>
<td>6.39</td>
<td>***</td>
<td>36.85</td>
<td>5.27</td>
<td>***</td>
<td>-4.97</td>
<td>-21.24***</td>
<td></td>
</tr>
<tr>
<td>Weather</td>
<td>0.02</td>
<td>1.17</td>
<td></td>
<td>0.06</td>
<td>1.27</td>
<td></td>
<td>0.00</td>
<td>0.11</td>
<td></td>
</tr>
<tr>
<td>GDP</td>
<td>0.11</td>
<td>1.38</td>
<td></td>
<td>0.39</td>
<td>1.62</td>
<td></td>
<td>0.07</td>
<td>7.77***</td>
<td></td>
</tr>
<tr>
<td>Mortality</td>
<td>1.92</td>
<td>0.36</td>
<td></td>
<td>6.99</td>
<td>0.44</td>
<td></td>
<td>-0.02</td>
<td>-0.03</td>
<td></td>
</tr>
<tr>
<td>Infrastructure</td>
<td>-0.01</td>
<td>-0.53</td>
<td></td>
<td>-0.03</td>
<td>-0.56</td>
<td></td>
<td>0.02</td>
<td>1.47</td>
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</tr>
<tr>
<td>Constant</td>
<td>2223.33</td>
<td>0.95</td>
<td></td>
<td>3187.07</td>
<td>0.48</td>
<td></td>
<td>4879.23</td>
<td>0.90</td>
<td></td>
</tr>
</tbody>
</table>

Regional effects: Yes; Yes; Yes

Observations: 6617; 6617; 14997
Groups: 124; 124; 211
Wald chi2: 63.14***; 52.43***; 1674.87
R square overall: 0.0620; 0.0717; 0.0332

Note: Statistical significance: *** - 1%; ** - 5%; * - 10%.

Source: Own calculations.

6. Discussion and Conclusion

This paper has examined the economic impact of two Slovenian jazz festivals to make a positive contribution to sustainable local economic development in 2008-2015. We found
evidence for the effect on both tourism and employment in both cities/towns, but found a wide variety of results over the studied years. It is clear that the festivals are reflected in the growth in the number of tourism and employment, thus they contribute to the sustainability of the local economy but this can be attributed to numerous reasons. Let’s shortly discuss some of them.

Firstly, the results show an increase in both tourism and employment in the starting years in both jazz festivals, with significantly larger numbers for Jazz Cerkno. The latter has established itself as a “proper” jazz festival, taking place since the middle of ’90s and attracting a regular group of contributors and visitors. Clearly, the economic crisis had its effect even beyond the mere cyclical effects on the level of Slovenia – we could claim it had an influence on both cities in a stronger manner than for the general country. Moreover, the competition of different new festivals (jazz – see Table 1; and of other musical genres) has surely contributed to the dissipation of the usual visitors and their decay in interest. Jazz Cerkno was in that time already not so new and it is possible that it suffered a crisis of identity in the latter years due to change of its management. Furthermore, both festivals can be classified as “home-grown” festivals (See Table 1), being more attractive to home than to foreign visitors - the latter forming a large part of the impact of the Jazz Cerkno festival in the earlier years while decaying latter.

Finally, Jazzinty Novo Mesto consists of several events, not necessarily being focused on the jazz festival performances but including a composition award and workshops, where the latter form the key part of the event since its start. It is therefore to no surprise that the effects of the Novo Mesto festivals are even less visible in the number of new tourists and employment spaces.

Lastly: may we claim an evidence of the effects of the two “home-grown” festivals on the resilience of the two host towns? From the results of our analysis, the evidence is
unfortunately not so uniform. We clearly see an additional level of new tourists and, as a consequence, new employment spaces, in particular in the early years of the festivals. This can surely be seen as a stimulus to local growth and, by this, to the resilience and welfare of the two towns, in particular in the economic sense. Furthermore, the economic effects were apparently on a timely basis, as evidenced by the coefficients on the interaction variables: they didn’t persist only in the month of the festival, but were more evenly spread across the year.

However, on the other hand, the times of the financial crisis saw those effects significantly lessened if not disappeared. This may raise some suspicion into the sustainability of the effects, but it is mainly logical/understandable/explicable due to the “home-grown” nature of the two festivals. It is clear that the festivals contribute not just to the economic effects but to the social, environmental, cultural and spiritual value and identity of the towns. It would be interesting, therefore, to perform also studies following the contingent valuation methodology and qualitative studies using Delphi technique focusing on the concept of community sustainability through cultural events, to corroborate our findings and speculations in the future. Only then we would be really able to comprehensively and holistically assess the value and the impact of the two festivals.

Nevertheless, this article used a novel methodology in cultural economics, developing only in the past year with few studies. It presented results which both confirm the importance of the method as well as show its drawbacks. It would be very important to use this methodology notably more in future, as it promises to overcome the significant (inherent) methodological problems of both the economic impact studies and contingent valuation (Srakar, Vecco 2016). We hope this article would provide another step in this research direction.
This study also presents some additional limitations. As stated, the importance of acknowledging jazz festivals’ impacts is well documented in the literature. Nonetheless, evaluative research has, until very recently, adopted predominantly the economic impact approach. This is despite a growing awareness of the potential limitations of results attained from the application of economic models alone (Burgan & Mules, 2000; Carlsen et al., 2007) and the growing pressure on public authorities and cultural festival organisers to account for the benefits and costs of organising these events in terms of social policy and public funding (Carlsen et al., 2007; Small et al., 2005). Future studies on jazz festivals have to combine the analysis of social and economic effects to develop a more holistic “picture” of the festival capacity.

In all two cases there were indications that the festivals, at least indirectly, were helping some local firms grow and prosper. The jazz festivals supported the local business development. However, this research did not uncover examples of direct festival involvement in the encouragement of social entrepreneurs, community businesses, or enterprises and co-operatives, volunteers which generate jobs, income and meet wider social and environmental objectives.

The economic impact of a festival on the host society goes beyond the organised activity (Hiller, 1995). Future research could further explore the social economic impact of jazz festivals, first at country level and then across Europe, and the impact of the festivals from visitor perspective and visitor expenditures during the festivals, as well as relationship between the communities and the destination management aspects.

References


Bianchini, F. (1996), Cultural planning: an innovative approach to urban development. In J. Vverwijnen, & P. Lethouvoiri, (Eds.), *Creative cities: cultural industries, urban development and the information society* (pp. 130-141). Helsinki: University of art and design Press.


