

Ithaca 2018 Abstract Submission

Title

Terrorism and Wine Tourism: The recent case of France

I want to submit an abstract for:

Conference Presentation

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Keywords

Wine tourism, terrorism, attendance, La Cité du Vin

Research Question

what is the effect of the recent wave of terror in France on wine tourism, in the short run but also in the long run?

Methods

distributed-lag time series models estimated thanks to daily data from La Cité du Vin, a wine museum located in Bordeaux (number of visitors since the opening)

Results

Estimation of an attendance demand function. We control for the influence of some alternative events that may affect the demand for attendance at La Cité du Vin

Abstract

France is one of the most prominent wine regions in the World. Recently, France has been hit by an unprecedented wave of terror with not-less than 26 terrorist attacks over its entire territory since the dramatic mass shooting of January 2015 (Charlie Hebdo journal). At the same time, French tourism suffered from a severe contemporaneous decrease of the number of foreign visitors: according to the Comité Régional du Tourisme, in 2016 the loss for the Paris metropolitan area would be at around 1.5 million tourists compared to 2015. Richardson et al. (2005) show that the number of tourists immediately declines after a terrorist attack in the country, with some positive and negative interregional effects. Terrorism has also more permanent effects (Becker and Rubinstein, 2008; Camacho, 2008). Luechinger and Stutzer (2004) show that it takes from 2-3 months to a maximum of 18-21 months to recover from a terrorist attack. The question that we raise in this article is the following: what is the effect of the recent wave of terror in France on wine tourism, in the short run but also in the long run?

To estimate the causal influence of terrorism on wine tourism, we collected museum attendance data on La Cité du vin, a wine museum that opened in June 2016 in Bordeaux, France. We use daily information about the number of visitors to estimate a demand equation for this museum located in one of the most touristic wine regions of the

World, Bordeaux. Such high frequency data will allow us to assess the impact of the aforementioned terrorist attacks using some distributed-lag time series models. In order to accurately capture the real impact of these events, we will control for the influence of a series of alternative events that may have affected the demand for attendance at this museum. In particular, we will use temporal dummies to capture a) the effect of the presence in the city of cruise ships as suggested by Gordin and Matetskaya (2012) but also b) the impact of the 2016 UEFA European Soccer Championship in June. France inaugurated a new high-speed rail line on July 2nd, 2017 linking the capital city to the city of Bordeaux. The TGV lines, christened LGVs (Lignes à Grande Vitesse), cut the journey time from Paris to Bordeaux by more than an hour, from 3h14 to 2h04. We will use this exogenous shock as a control variable in our model to assess the impact of this major infrastructure on the demand for attendance at La Cité du Vin. At the same time, we will use information retrieved from Google Trends to improve our predictions (Siliverstovs and Wochner, 2018). Indeed, Google Trends will inform us about the intensity with which people search information about the museum as well as their geographical origin.

The literature on the demand for attendance suggests several other potential determinants. In the case of the motion picture industry, Einav (2007) opens the seasonality “black box” and shows that films earn more on public and school holidays. Weather is also included in some models of movie demand (Dahl and DellaVigna, 2009 ; Moretti, 2011 ; De Roos and McKenzie, 2014). In the case of art museum, Skinner et al. (2009) show that attendance varies counter-cyclically with the business cycle. Our data will be used to characterize the typical seasonality of the demand for this museum.

The demand for attendance has also been analyzed at sporting contests, especially to address the impact of new stadiums and arenas on season attendance. A honeymoon effect that lasts between 4 and 8 years (persistence of a positive effect on attendance) has been detected by Zygmunt and Leadley (2005) in the case of the Major League Baseball (MLB) from 1970 to 2000, by Leadley and Zygmunt (2005) in the case of the National Basketball Association from 1971 to 2000 and by Leadley and Zygmunt (2006) for the National Football League (NFL) from 1994 to 2003, a period in which 21 new arenas opened. We will also test this honeymoon effect with our data. While there is an abundant literature on art museum attendance in Cultural economics, studies dealing with the determinants of attendance of wine museums are scarce. Price is theoretically one of the main determinant of demand for attendance and research has focused on the effect of price on the demand for the arts (Seaman, 2006) and on the demand for sports (Borland and MacDonald, 2006). But La Cité du Vin has not changed its price since the opening, hampering our ability to estimate price elasticities of demand and attempts to formulate an optimal pricing strategy. Skinner et al. (2009), who study museum attendance at an aggregate level, do not use any price variables. Given that the price is fixed, this study will determine the impact of the various events on the total revenue of the museum.

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Terrorism and Wine Tourism:

The recent case of France

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France is one of the most prominent wine regions in the World. Recently, France has been hit by an unprecedented wave of terror with not-less than 26 terrorist attacks¹ over its entire territory since the dramatic mass shooting of January 2015 (Charlie Hebdo journal). At the same time, French tourism suffered from a severe contemporaneous decrease of the number of foreign visitors: according to the *Comité Régional du Tourisme*, in 2016 the loss for the Paris metropolitan area would be at around 1.5 million tourists compared to 2015. Richardson et al. (2005) show that the number of tourists immediately declines after a terrorist attack in the country, with some positive and negative interregional effects. Terrorism has also more permanent effects (Becker and Rubinstein, 2008; Camacho, 2008). Luechinger and Stutzer (2004) show that it takes from 2-3 months to a maximum of 18-21 months to recover from a terrorist attack. The question that we raise in this article is the following: what is the effect of the recent wave of terror in France on wine tourism, in the short run but also in the long run?

To estimate the causal influence of terrorism on wine tourism, we collected museum attendance data on *La Cité du vin*,² a wine museum that opened in June 2016 in Bordeaux, France.³ We use daily information about the number of visitors to estimate a demand equation for this museum located in one of the most touristic wine regions of the World, Bordeaux. Such high frequency data will allow us to assess the impact of the aforementioned terrorist attacks using some distributed-lag time series models. In order to accurately capture the real impact of these events, we will control for the influence of a series of alternative events that may have affected the demand for attendance at this museum. In particular, we will use temporal dummies to capture a) the effect of the presence in the city of cruise ships as suggested by Gordin and Matetskaya (2012) but also b) the impact of the 2016 UEFA European Soccer Championship in June. France inaugurated a new high-speed rail line on July 2nd, 2017 linking the capital city to the city of Bordeaux. The TGV lines, christened LGVs (*Lignes à Grande Vitesse*), cut the journey time from Paris to Bordeaux by more than an hour, from 3h14 to 2h04. We will use this exogenous shock as a control variable in our model to assess the impact of this major infrastructure on the demand for attendance at *La Cité du Vin*. At the same time, we will use information retrieved from *Google Trends* to improve our predictions (Silverstovs and Wochner, 2018). Indeed, *Google Trends* will inform us about the intensity with which people search information about the museum as well as their geographical origin.

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¹ https://en.wikipedia.org/wiki/List_of_terrorist_incidents_in_France#21st_century

² See <http://www.laciteduvin.com/en/explore-la-cite-du-vin/la-cite-du-vin-world-cultures>

³ Our analysis will be based on two years of data at the time of the conference

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