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Barcelona is Not for Sale: The Economic analysis on the Limitations of Tourism in Barcelona

Previously tourism has been a supported element of international trade, but now this trend seems to be broken by a Spanish legislation intended to limit tourism in Barcelona. This paper aims to examine the reasons for such a government policy, evaluate the efficiency of the current measure and elaborate on possible solutions. Our findings, based mainly on microeconomic analyses, suggest that both the locals and the government have incentives to support restrictions on tourism while the present policy is not likely to be the most optimal solution. A combination of price discrimination and a tariff-rate-quota might be a better option.

Tourism is one of the fastest-growing and most attractive sectors of international trade, which serves as a source of revenues, creates jobs and boosts investments. A significant 10.4% of global GDP can be attributed to the sector in question which provides workplace to as much as 119 million people across the globe [World Travel and Tourism Council, 2019: 3]. These data clearly show the importance of the industry in the present, but the fact that 4.5% of total investment and 20% of all new jobs created in the world is linked to tourism forecasts its important role in the future as well [World Travel and Tourism Council, 2019: 3]. [Goodman, 2012]

The economic advantages originating from flourishing tourism clearly benefit Spain, the world's third top touristic destination, and still, recently a legislation has been introduced with the intention of limiting tourism in Barcelona, the capital of Catalonia, one of the most visited cities of the country [World Tourism Organization, 2016]. At first, this may come as a surprise, because such a measure would have been unimaginable in the past, but the truth is that the authorities of many of the world's most visited touristic locations – such as Machu Pichu [Ryly, 2018] or Easter Island [Lastoe & Marcus, 2018] – have put forward similar steps in order to fight the issue of overtourism. Nonetheless, the lack of residents in these cases implies significantly different solutions to the issue.

The recently rising interest of the governments in this topic and the possibility of further policy interventions – not only in Spain but worldwide – raises many relevant issues and clearly shows that there is a huge problem in relation to the tourism of today. But what are the possible problems that may lead to the application of a restrictive measure on tourism? Is the current policy of the Barcelonan government efficient and effective in reaching its goal? What alternative policies can be applied to offer a better solution to these problems? These are the questions this article aims to answer. The paper is based on the Scientific Student Association (TDK) research of the same authors.

1. Incentives to support limitations

Based on the previous examinations [World Travel and Tourism Council, 2019], we can conclude that tourism is an essential part of the world trade, and it has many positive effects on the economy of several countries. In spite of all these, it must also be taken into consideration that tourism can potentially affect some market players disadvantageously. More precisely, the incentives of the residents and the government to limit tourism must be assessed.

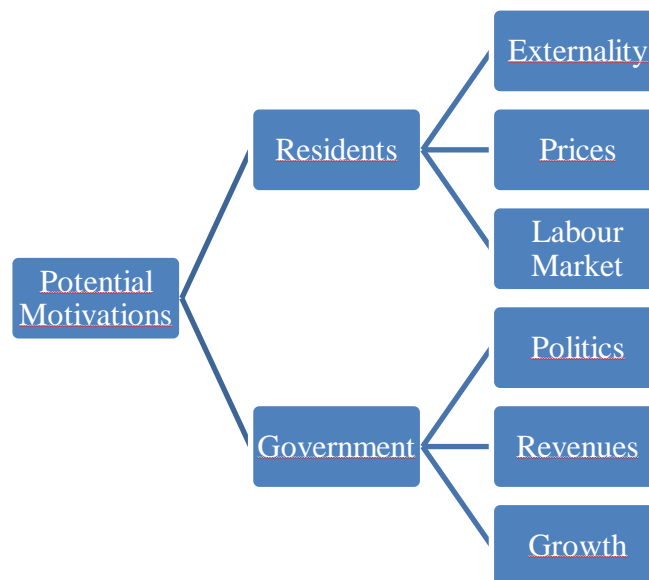


Figure 1: Potential Motivations of the Limitations,

Source: Authors

The residents are not the main beneficiaries of the flourishing tourism, but they have to bear the consequences of the masses of tourists, so they see the problem from a unique point of view. That's why their motivations must be taken into consideration when analysing the issue of overtourism. The most important aspects relating to them are 1) the negative externalities, 2) higher prices and 3) labour market distortions.

The wellbeing of the residents is heavily affected by the sheer amount of tourists, the congestion, the garbage scattered all over the city and the deterioration of the environment. Unquestionably, all these can be viewed as negative externalities that are harmful to the residents and leads to submaximal social welfare. This market failure is the result of the sub-optimal price-driven overtourism in this special case. Thus, because of the negative externality, the residents may opt to support the limitation of tourism. [Perloff, 2012]

Another reason is that the increased number of tourists leads to higher prices. This can occur on two different fronts. The simpler reason is that tourists can represent a large amount of extra demand, and thus, increase prices [Perloff, 2012]. This is the situation in case of most consumer goods, which are purchased by both tourists and locals. However, these are not the only goods the price of which becomes higher due to the growth of tourism.

The second issue is that the factors of production, mostly labour, and the economic resources used are the same for the production of goods consumed by locals and tourists. Housing for locals and accommodation for tourists, for example, is a good example of this scenario. As these factors are reallocated in the more profitable tourism sector, their prices will be higher when using them for the production of goods offered for the domestic market. This causes the output available for locals to fall as well. Lower quantity supplied and higher production costs unambiguously increase the price of the final goods. Thus, due to higher prices the society achieves a lower indifference curve, and so social welfare is not maximized. This may serve as another motivation for locals to support the restriction of tourism. [Nowak et al., 2003.]

Tourism also distorts the labour market. Tourism is generally a low-wage sector employing low skilled workers. As tourism develops, the wage of labour force in the industry increases relative to that of workers in other sectors. This tendency leads to an internal migration of workers between industries, which results in an opposite, decreasing effect on the wage of tourism workers.

Empirical data shows that the net effect is a fall in the wage of workers in question [Fernandez et al., 2016].

The seasonality of the arrival of tourists also needs to be taken into account. As the majority of them arrive in the summer, there is a huge peak in the sector's employment rate during that time [Government of Catalonia, 2014]. This high demand for seasonal workers attracts students and foreigners, who can return to study or their home country after the summer. In the end, this phenomenon hurts – and hits with unemployment – those who try to build their whole life on a job in the sector, e.g. lifelong waiters and receptionists. [Fernandez et al., 2016]

Besides the obvious effect of tourism on society as a whole, the point of the government needs to be analysed as well. Whatever the wants and needs of the individuals are, and whichever way they want to act, the outcome of any public issue is controlled by this actor. Although the demand of the government is derived (it originates from the society) and the decision-makers are expected in line with the public wishes, three unique motives can be identified, which may lead to some kind of restriction on tourism. These are 1) the political, 2) the financial and the 3) long-term growth-related aspects.

The most obvious reason for a politician to reduce the number of tourists is not an economic one; it rather originates from the fact that it is an attractive topic nowadays. On one hand, many NGO's have organized demonstrations against the excessive number of tourists, specifically in Barcelona [Plush, 2018]. On the other hand, sustainability and environmental consciousness are one of the few topics the importance of which is unarguable generally, in the whole world, irrespective of political ideology, so it is a surefire way to win the faith and, of course, the votes of the inhabitants. [Burgen, 2018]

The second reason for the government to control tourism is a financial one: by doing so it may raise revenues. This aspect is especially important in case of Spain due to its large government debt and budget deficit. Based on the data provided by Eurostat, Spain is the country with the fifth largest debt in the continent [Eurostat, 2018:1]. Regarding the government deficit, the country is the leader in Europe [Eurostat, 2018:1]. It means that the government debt of the country is getting bigger and bigger, so, unquestionably, a good tourism policy which raises revenues can benefit the

government in its mission to generate a government surplus, and thus, from year to year slowly decrease, or even eliminate the government debt.

The third potential reason why a government would limit tourism is a more holistic one. This step may support the long-term growth of the economy by affecting resource allocation via changing the attractiveness of investment in the industry. Long-term growth of production can be analysed by the macroeconomic model of Solow, which concludes that the only possible way to maintain growth on the long run is technological progress [Solow, 1956 in Blanchard, 2011].

Of course, travel, accommodation, and goods of consumption involved in tourism can be developed technologically, but the main offering of touristic destinations is most often the destination, and most specifically, the attractiveness of it, which “non-price competitiveness component” can not be connected to the technological progress [Algieri & Kanellopoulou, 2009: 9-11].

This characteristic hampers planning for the future and this is exactly why it would not be a good idea to focus only on tourism as a base of economic development. By decreasing the weight of tourism involved in the economy of the country, the government may incentivise the reallocation of resources and factors of production of the country in an industry that holds out the promise of more stable development and growth in a more controllable and plannable manner.

Governmental solution: The Special Tourist Accommodation Plan

Despite the number of discontentful opinions regarding the overcrowded Catalan capital, the first important footstep that lead to the restriction of tourism was the open and explicit expression of dissatisfaction by Ada Colau in 2014, who was a politician at the beginning of her career at the time [Colau, 2014]. The foundations of her political career were based on his opposition against tourism, and it clearly worked out: she is the mayor of Barcelona since 2015 which proves that the inhabitants of the city support these kinds of aspirations. [Lagrave, 2018]

Residents of the city did not only wait for politicians to settle the issue. Civilians also started to deal with the problem, and these activities reached their peak when, just before the introduction of the new policy, more than 40 NGOs protested in La Rambla, the most famous pedestrian street of Barcelona, which can be also viewed as the symbol of the unsustainable tourism which

deteriorates the welfare of the citizens. Their slogan was “Barcelona no esté en venta!”, which translates to “Barcelona is not for sale!” [Plush, 2018].

As a result of the strenuousness of Ada Colau in the Parliament of Catalonia and that of activists of the NGOs on the streets, the Special Tourist Accommodation Plan (PEUAT) was created. This is a special form of export quota, that limits the number of beds available in the city for tourists. The aim is to offer a balanced distribution of tourist accommodation and local housing. In order to do so, the PEUAT “has established zero growth for Housing Used for Tourism (HUTs) throughout the city” [PEUAT, 2018]. New accommodations can be opened if an old one exits the market, and even in that case, only one may do so in the less dense, uncongested areas. [PEUAT, 2018]

The train of thoughts of the policymakers is very easy to follow: they expect to reduce the harmful effects of overtourism by restricting the number of tourists through limiting accommodation by the use of (an unconventional form of) export quota. This government policy could theoretically work, however, the reality is much more complex.

So how efficiently can the Special Tourist Accommodation Plan respond to the previously explained six problems? As previously examined, the residents of Barcelona have three main reasons to support the introduction of limitations on tourism, namely the presence of negative externalities, the higher-than-optimal prices and the problems related to labour-market. Nevertheless, the Special Tourist Accommodation Plan can not be considered unambiguously successful in resolving these issues.

The biggest issue that was not taken into account by the policymakers is that the majority of tourists do not even reside in the city. “Of the 32 million people who visited Barcelona last year, only 8 million stayed in hotels. Twenty-three million were day-trippers who spend very little money in the city” Manel Casals, director general of the Barcelona hoteliers association said [Burgen, 2018]. Based on this it can be stated that only 25% of the tourists would be somehow affected by the policy, which questions the efficiency of the PEUAT.

At the same time, spending on accommodation is still very high, adding up to one third of all tourist expenditures [Coscia et al., 2016: 1]. Thus, it can be concluded that the policy would hurt those tourists who spend more days and money in the city while leaving the daytrippers unaffected,

who are responsible for a large part of the negative externalities without contributing to the economy. Thus, the issue of externalities will persist along with the sub-maximal social welfare of the residents.

As the policy affects those seeking accommodation in the city, even if it is only one quarter of all tourists of Barcelona [Burgen, 2018], although less efficiently, but it unarguably limits the number of incomers to some extent. The declining number of tourists leads to lower demand materializing in decreased domestic prices in case of some products (e.g. consumer goods). Thus, PEUAT can be considered to at least mitigate the problem of high prices for residents and elevate their social welfare to some degree. [Nowak et al., 2003]

The limited demand results in less output and consequently less labour needed, which outcome would hurt the labour force of the industry in the two most sensitive aspects. Firstly, as the decreased output leads to fewer factors of production needed, laying off employees is a very probable outcome, which is especially harmful in the case of Spain due to the high unemployment rate of the country [ACN, 2018]. The second unpleasant effect is that as demand for workers will decrease, their employees are likely to decrease their wages, worsening thus their situation further. Moreover, the problem of seasonality and the issues originating from it remain unresolved by PEUAT, so it can be claimed that the labour market-related issues originating from the overtourism of Barcelona will persist.

The policy only solves one of the three problems of residents originating from the overtourism. Therefore, with the political motivations and aims of the government being derived from the incentives of the locals, PEUAT cannot be considered efficient from a political point of view either. These locals are the voters as well, and probably they will not be satisfied, because most certainly the government will not be able to show off significant achievements, despite trying to deal with one of the most attractive topics of today's public life.

The government does not generate revenues through the introduction of the policy either. This is why no decrease in government debt or the budget deficit will be realised. In fact, the situation is quite the opposite. Although up until this point "the earnings from tourism have systematically compensated Spanish trade imbalances since the seventies" [Balaguer & Cantavella-Jordá, 2000: 2], after the introduction of the policy the restricted number of tourist will cause government

revenues to fall, leading to even greater financial issues, without any new source of income created by the PEUAT which would enrich the government. Furthermore, the policy in question is bad marketing to the country as well, decreasing the value of the touristic attractiveness of Barcelona, which would lessen the income relating to tourism even further. [Lagrave, 2018]

As PEUAT only affects approximately one quarter of all tourists visiting Barcelona, the limitations set by it cannot be expected to significantly decrease the weight of tourism in the economic structure of the city of Barcelona, the Autonomous Community of Catalonia, or even the country of Spain. The dependence on incomes originating from the sector in question is likely to persist, maintaining the unplannable and insecure nature of the Spanish economy as a whole.

And it has not even been taken into consideration that although this measure can restrict the amount of legally allowed beds, even now there are many unregistered accommodations, and their number is expected to grow with the policy coming into force. This will decrease the efficiency of the policy even more, so we can conclude that that the Special Tourist Accommodation Plan is not likely to solve the overtourism of Barcelona. [Plush, 2018].

What Measure Could Be a Better Alternative?

Finding an alternative is not as easy as it first may sound: the solution is desired to be one, that satisfies the needs of all the previously introduced stakeholder groups: residents; owners, investors and employees of the tourism industry; tourists; and the government, all the meanwhile taking into consideration, that 10,4% of the Spanish GDP is generated on the industry in question [Martín et al., 2015, p.153.], which makes it essential to vindicate most of the revenues achieved in order to prevent the country's economy from collapsing.

As we have already seen, tourism is a very interesting and special product in itself, but even though it is not transported from the domestic country to the importing one, it can still be thought of as an export good, with Spain (or in closer terms Barcelona) being the exporter. Therefore, most conventional microeconomic policies can still be used to achieve equilibrium prices and quantity consumed.

When it comes to exporting goods, one of the most commonly used measures to control their quantity sold and through it their price is laying export taxes on them. This way, if the tax rate is determined properly, the externality can be internalized, as the externality cost is added to the private cost of producers, thus the price of exported goods and services will increase, while quantity demanded decreases, which conversely creates excess supply on the domestic market, resulting in a decrease in the domestic price level. Due to this influence, we can assume, that residents are likely to enjoy a bigger consumer surplus than they have before.

Another advantage of taxation is the fact that it generates revenues directly for the government, without the need of an intermediary financial institution, like in the case of some other trade policy instruments. This is particularly important for Spain, Europe's leader, in terms of government deficit at least. [Eurostat, 2018, p.1]

However, at this point, we have come to the disadvantages. Although on the surface, the introduction of an export tax may seem like the solution to overtourism, in reality, many existing issues originating from the phenomenon, would persist with a potential of them getting even worse. Since in case of taxation we do not make a distinction between foreign and domestic workforce, the distorted state of the labour market would remain.

Worse still, due to lower international demand for export products and decreasing domestic prices, manufacturers of export goods are likely to adjust to the new market conditions, which would result in them decreasing the quantity produced, which in term leads to less workforce needed. It's easy to see that this would cause serious problems, especially in Spain, where unemployment is already one of the highest amongst European Union member states [ACN, 2018]. Due to the excess workforce available, wages, thus real wages, of people employed by the tourism industry will also decrease.

Since the previously examined methods have left something to desire, it might be beneficial to look for another solution. A possible option worth looking into is called a tariff-rate quota, which is a two-tier system of tariffs and quotas designed to restrict the quantity of the good in question consumed.

After reaching the desired threshold in terms of quantity produced, a tariff with a pre-determined rate will enter into force, driving prices of the commodity or service upwards, thus decreasing consumers' willingness to purchase them.

In theory, the introduction of a tariff-rate quota system seems to be the solution to most of Barcelona's tourism industry's problems. However, in practice, it has a significant drawback we need to mention, namely the fact that developing a TRQ system can be just as damaging as favourable, especially for residents, if the rate of the tariff is not set at the adequate level.

The less harmful of the two possible failures occur when the rate of the tariff is set too high. In the most severe outcome of the case, which we now use for demonstrative purposes, after the quota on consumption is reached, there will not be a desire to purchase the good or service at the now higher price. The tariff-rate quota system would function as a quota, continuing to hold all of its positive and negative values.

In case the tariff's rate is set too low, residents, thus the government will be facing a noticeably more serious issue. Let us assume that the tariff rate is set at a number convergent to zero. In this instance, tariffs have very limited influence on the price, thus on the consumption of the good or service, practically eliminating the effectiveness of the quota, leaving all issues of Barcelona's tourism industry unaffected.

As a summary of tariff-rate quotas, we can say, that theoretically, they might seem like the "best of both worlds", combining the advantages of tariffs and quotas. However, in practice, the introduction of them would be a risk most governments are unlikely to be willing to take, especially if the industry of effect is as important as tourism is for Barcelona.

Instead of limiting the maximum quantity of commodities exported, governments can also take actions against production. This is not a method governments usually turn to; however, the case of Barcelona is not usual either, which made us think about this possible solution.

There are many ways a country can hinder producers in order to lower supply; one of them would be laying taxes or quotas on intermediary goods needed for the creation of the final product, but it's hard to consider this a new solution, it's easier to refer to as a slightly modified and more

focused realization of the previously mentioned ones, which implies, that they share most of the same problems.

Another route governments can go down, is creating high barriers of entry, which economic term describes “the presence of high startup costs or other obstacles that new competitors have to face when entering an industry or an area of business” [Kenton, 2018]. These barriers can simply be built by the characteristics of a particular market segment, by the already operating market players (e.g.: brand identity, customer loyalty) or by the government itself. Since we are still employing the assumption that total welfare is not at its highest potential, we can state, that an artificial intervention, legislated by the government, is needed to further decrease production.

Debatably one of the most effective measures governments have in hand is setting the minimum capital requirement at a rate so high that no new entry to the market segment is reasonable to expect. When doing so, businesses going bankrupt will not be replaced, and this would, or rather, as we will see later, could mean a decline on the supply side.

The main short-term focus of a company is to generate as much profit as possible, meaning that they are willing to produce the last product they can sell at a profit. This implies, that companies still in business would adjust quantity and price accordingly to inter-industry changes more or less compensating for losses on the supply side caused by companies going out of business. [Perloff, 2012]

If we continue on this train of thoughts, assuming a continuous drop-out of companies, after a while, a company, or a couple of companies, would find itself in a monopolistic or in an oligopolistic position, meaning, that it faces next to no competition, implying a very high influence on the price of the good. Companies achieving monopolistic situations tend to become hard to control and usually raise not only economic but also social and ethical questions (e.g.: unfair pricing). It can be stated that solving a market failure by creating another one is not the desired outcome, and can in some cases result in more harm than good to the economy as a whole.

A Special Alternative: The TRQ-Price Discrimination

After examining and evaluating the previously listed alternative solutions, we came to the conclusion, that none of these purely microeconomic methods are likely to solve the problem of overtourism on its own, with the primary issue being too many market players affected by the policies, all with different incentives. Until we can not differentiate between these stakeholder groups, we will not be able to find a solution that satisfies each group's needs.

Starting from this assumption, we have begun to realise, that the issue of overtourism in Barcelona requires us to find a more sophisticated answer, with which the governing bodies are able to determine which market players to benefit and which to potentially harm.

The solution we have finally settled on would be built around the combination of a three-level price discrimination model, and a tariff-rate-quota system applied to all commodities available for sale in Barcelona.

Based on differences in terms of the number of nights spent in the city, the policy would divide customers into three main categories: tourists residing for less than three days, who from this point on will be referred to as “day-trippers”, tourists residing for at least three days and residents. This distinction includes an important deduction of our article: in general, the fewer time tourists spend at a location, the fewer benefits and the more negative externalities they bring to the city. The system we have developed for the tracking and for the implementation of the three-level price discrimination would be heavily reliant on two types of passes only obtainable for certain groups of customers.

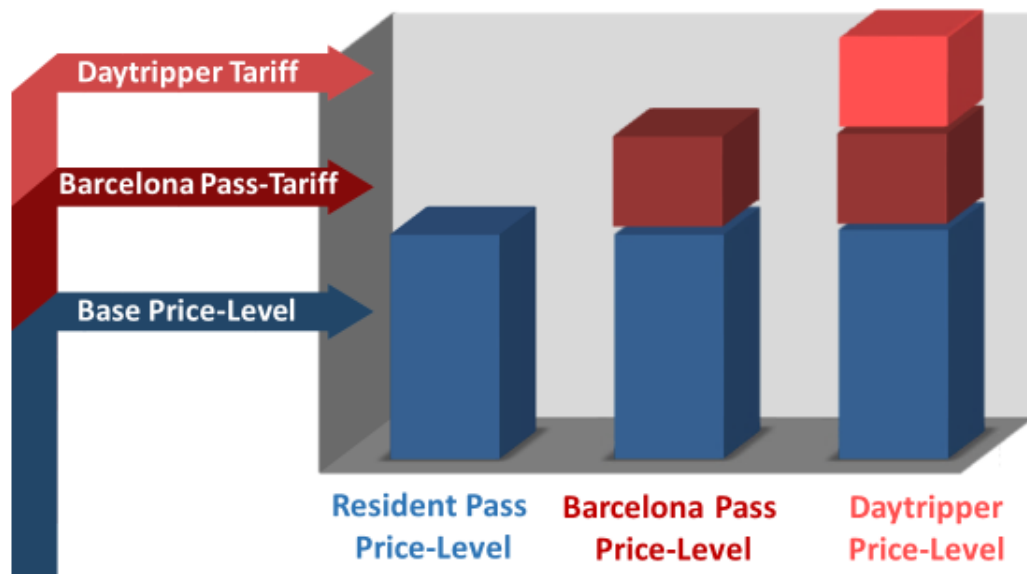


Figure 2: The Barcelona Pass System

Source: Authors

The "Resident Pass" would qualify its occupant to be exempt from all tariffs aimed at solving the problem of overtourism, but could only be claimed by locals having a permanent address in Barcelona. The "Barcelona Pass" would be available for sale only for tourists booking accommodation in the city for at least three nights. It would entitle its holder to pay lower tariffs, than in case they did not have the pass. "Day-trippers" would not be authorised to get either the Barcelona or the Resident pass, thus would have to bear the highest tariffs of any customer type.

Both the "Resident" and the "Barcelona" pass would cost little to no money since we do not want the opportunity cost of obtaining either of the passes, thus the possibility of customers not claiming them, to grow significantly. For the same reason, the pass would function as a credit card, with the money automatically being transferred back to the bank account of its holder as soon as the card is deactivated at one of the many "Barcelona Pass Points". At these stations, tourists would also be able to get hold of their passes by scanning the receipt they received when booking their accommodation.

The introduction of the proposed system, we believe, would solve all of the issues analysed in the previous chapters. The problem of negative externalities will be solved by decreasing the number of arrivals and it is also important to stress, that by being able to differentiate between two

main types of tourists, the government has all the means necessary for keeping a large portion of preferred visitors (the ones who are staying in the city for a long time) and for letting go of the less desired “day-trippers”.

Higher prices are another one of the key issues, but with the envisioned system, residents, who up until this point have had to pay the same prices as tourists, would be qualified to pay noticeably less for every purchase they make. Prices are also likely to decrease naturally due to lower demand originating from fewer visitors, which is in accordance with the law of supply and demand.

Arguably one of the hardest problems to solve was the distorted labour market, but the policy would, if not solve, certainly mitigate this issue. By making commodities more expensive for foreign, seasonal workers, their real wages would decrease. For this reason, they might only be willing to take the same job, if their salaries increase, all the meanwhile real wage of the domestic workforce increases due to lower than before prices. The combination of these two effects is likely to cause employers to turn towards the domestic workforce, whose costs have become relatively cheaper to that of foreign workforce.

From the side of the government, the introduction of the policy would be advantageous for multiple reasons: it is no secret that governments need to gain popularity for its legislations in order to make their implementation successful. Most people call this a political success, which we believe depends heavily on solving as many problems of as many market players as possible, with their size and bargaining power also being taken into consideration. In the currently analysed Barcelona case, the group issuing changes the most, are residents, regardless of whether they work in the tourism industry or not. By satisfying the needs of them, who, we must not forget, form the largest stakeholder group, political success is almost a guarantee.

The policy would generate revenues on every purchase made by tourists, (with the amount being dependent on the type of the tourist) and also on selling the “Barcelona Passes”, should they cost any amount of money to obtain. The government's ability to set the rate of the tariffs concerning tourists effectively gives them the option of determining the number of visitors arriving in the city, which makes sustainable and predictable long-term growth in the industry achievable, which in terms makes the need to decrease the industry's weight on the nation's economy non-existing.

However, after we have found a solution, which we believe gives us a satisfying answer to overtourism, we still looked for some solutions outside our textbooks, which might help the effectiveness of the proposed measure. These slightly "unorthodox" methods would be aimed at changing tourists' practices when going on holiday in Barcelona. One of the most important issues the local government faces is the high variance in the number of arrivals to the city, usually referred to as seasonality: about 40 % of all visitors arrive in the city in June, July, and August.

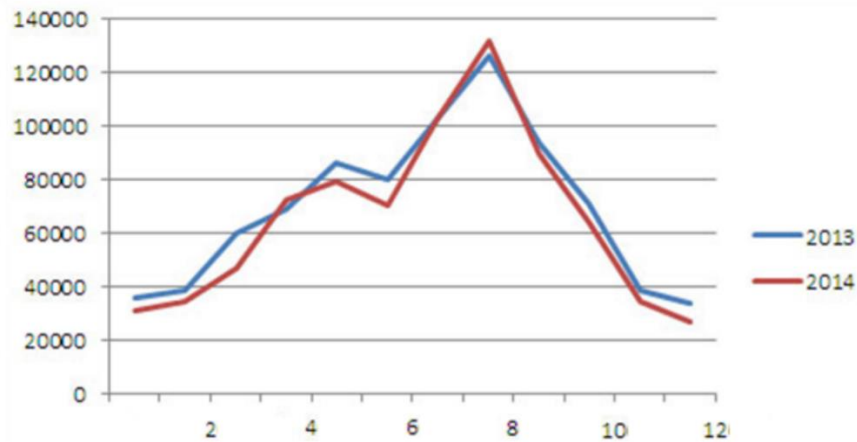


Figure 3: Monthly Distribution of Tourism in Catalonia,

Source: Government of Catalonia [2014]

It is, of course, no co-incidence, that these three months rule the charts. It can be traced back to some geographic (temperature, number of sunny hours) and society related (school holiday) factors, but one way to better satisfy stakeholder groups harmed by overtourism would be de-seasonising industry's output through the promotion of possibly less well-known attractions the city can offer throughout the year, not only at summer. While the described solution is unlikely to solve all of the problems originating from the overtourism, it can certainly soothe them, without reducing the number of visitors, thus revenues generated on them.

Summary

Because of the complexity and the unique nature of the tourism industry, we have to look past conventional microeconomic methods, like the one currently in force in Barcelona and have to find a more in-depth one using which the decision making can entity determine which stakeholder groups to favour. We believe that the previously proposed model consisting of a three-level price

discrimination and a tariff-rate quota system would allow the county's government to possess a higher level of responsiveness and accuracy to reach the desired "quantity" of tourism than in case of using any other method. Arguably even more significant is the fact that they would be able to differentiate between main customer archetypes and regulate their level of consumption individually. Based on these observations we can conclude that the solution we have elected for solves all the problems originating from the phenomenon of overtourism both on the government's and residents' side by providing the flexibility needed to control one of the most dynamically changing industries, tourism.

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