

# EXTERNALITIES AND TOURIST TAX

## Evidence from Italy

**Azzurra Rinaldi**

Unitelma-Sapienza University of Rome, Viale Regina Elena 295, 00161

Rome, Italy [azzurra.rinaldi@uniroma1.it](mailto:azzurra.rinaldi@uniroma1.it)

**JEL Classification:** D62, E62, H23, H41, H71.

**Keywords:** externalities, tourist taxation, fiscal policy.

### 1. Tourism mass consumption

During the last 60 years, international tourist arrivals increased despite the 2001 and 2008 economic shocks. In 2010, in the middle of the financial crisis that hit many advanced and developing countries, international tourist arrivals grew by 6.6% (23 millions), totaling 940 millions. In the same year, international tourism receipts rose by 4.7% respect to 2009, getting to 610 billions of Euro.

These data show that tourism has become a mass-consumption practice. And it also happened thanks to price reductions, due to low cost flights and last minutes, that overcame seasonality and created a sort of routine in tourism consumption. It is then unbelievable that the economics literature

does not provide an extensive and modeled theoretical analysis of tourism particularly regarding the public regulation of tourism and social welfare<sup>1</sup>.

## 2. Tourism externalities

Indeed, even though tourism increases GDP and helps developing countries to grow, yet it is not costless. Tourism has been considered as a low environmental-impact industry for a long time, but in recent years we found that tourism supply and tourism demand have significant economic impacts both at the microeconomic level, since they modify local supply, and at the macroeconomic level of GDP and economic policies, since national government have to deal with it and with the consequences that it produces. While the economic benefits generated by tourism are quite clear, since they are related to increasing production and an higher employment rate, a deeper focus is needed on its negative impacts such as congestion and environmental degradation (Gooroochurn & Sinclair, 2003, 2005).

Indeed, tourism is a good with external costs, because it is associated with negative externalities due to both the supply (new infrastructures and new hotels mean landscape deterioration) and the demand. The entry and the stay of tourists cause congestion, pollution, rising cost of living, conflict between them and resident, overuse of natural and heritage resources, congestion in the use of tourism-related infrastructures, such as roads, highways and airports.

This happens because social costs deriving from the production process are not taken into account by private firms.

It is generally recognized that externalities are the major reason that an economy might not rely only on market system in order to allocate resources, because when an external cost is present, the quantity of a good produced by the market is greater than the efficient quantity. In presence of

---

<sup>1</sup> Chang, J. J. *et al.* (2011).

consumption externalities, markets do not provide the optimal level of the produced good and this creates a wedge between private and social costs, because private costs related to the production process are lower regarding to the social costs that affect the whole community. That is, the inflow of tourists may generate extra public costs related to the provision and conservation of local natural resources and it is well known that natural resources are crucially important to tourism. It is also well known that, since they are public goods, environmental resources are subject to market failure. It means that their utilization is non-optimal, since they are overused; this way, the production of tourism-related goods presents limited returns, because the prices of natural resources cannot be fully internalized.

Mainly for such destinations with limited tourism-carrying capacity, negative externalities may be critical in the face of remarkable tourism inflows. In this case, costs related to the tourism service cause the reduction of welfare of the local population. This inefficient allocation may be rectified by imposing a tax on those who are responsible for the environment deterioration.

Since externalities are not usually taken into account by individual firms, tourism expansion is undoubtedly more desirable to an individual firm than it is to society. So, in order to re-establish a social welfare equilibrium, in the presence of higher externalities, a higher rate of tax is necessary.

### 3. Dealing with externalities reduction: how to internalize social costs

It is a shared opinion that when market presents negative externalities, external costs should be internalized by governments, that should introduce a specific taxation. Among the public policies that the public sector could implement, taxation plays a fundamental role, both for the corrective function that it may grant and for the volume of the potential tax revenue. Taxes can be imposed both on tourism enterprises and on tourism consumers and, this

way, tourism taxation may correct for market failures that affect this productive sector. Tourism industry may be taxed through airline fuel taxes or, in most cases, taxes related to the use of other natural resources (like carbon). Taxation on tourists may be much wider, including taxes like departure tax, transit tax, VAT or sales tax, bed-night tax.

Tourism taxation may give rise to higher revenues that governments may spend in order to give impulse to the development of the sector, or also to provide infrastructures and new services for resident population.

Governments find themselves needing to choose which tax to levy and on whom. In the literature, it is widely accepted that taxation should respect the following principles: equity, efficiency, stability, simplicity and cost effectiveness.

In the theory developed by Musgrave<sup>2</sup>, we find two different doctrines for equity. The first one is based on the benefits people get by using public services. The second one is related to the ability of each individual to pay.

According to the benefit doctrine, a system is equitable only if each taxpayer who has a benefit from public services contributes to the provision of those services.

The doctrine focused on the ability to pay posits that each taxpayer should contribute to the provision of public services in line with his ability to pay. This doctrine also distinguishes between horizontal equity and vertical equity. Horizontal equity is reached when people with equal ability actually pay the same amounts, while vertical equity is granted when a progressiveness criterion is satisfied and people with greater ability pay more.

From an efficiency point of view, the ideal taxation is consistent with Pareto optimal allocation. In a Pareto optimal allocation of resources, there is no further improvement from an individual, without detracting from elsewhere.

If we take into consideration the Pareto optimality, the optimal tax is simply a lump-sum tax. Some examples for tourism service could be visa charges, departure taxes or even air travel taxes. Also a VAT modification may be used: governments could raise VAT or its local equivalent. This choice

---

<sup>2</sup> Musgrave, R. A. (1959).

reveals itself to be optimal also under a strategic point of view: indeed, voters seem to be less conscious of consumption tax increase than changes to income tax rates. Furthermore, VAT has the characteristic of being non-distortionary on the relative price set that consumers should bear.

All of this considered, lump-sum taxes would seem to be the perfect choice for governments that decide to levy a tourism tax. Anyway, lump-sum taxes perfectly work when there are no market imperfections, such as an externality and only if we assume that all the consumers in society have the same preferences. Besides that, lump-sum taxes are rarely used because they fall equally on each member of the society, whether rich or poor, placing a greater relative burden on the latter.

These are the reasons why the most common method is to use a Pigouvian tax. As we know, Pigou argued that, in presence of negative externalities, indirect taxes can be used to improve the efficiency of market allocation. With reference to the tourism sector, external costs caused by congestion or pollution, for example, can be internalized if polluters (in our case, tourists) pay a tax whose value is equal to the one of the external cost. A Pigouvian tax corrects for the divergence between the market price and the social marginal cost.

Indeed, in order to internalize external costs so that they can be reflected in the market price, governments increasingly levy specific tourism taxes, for two main reasons.

The first is related to the classic argument governments use for a tourist tax, that is to allocate to the supply price the external costs that otherwise the local community should pay for. This way, tourist tax would correct for market failure. Revenues raised by taxation would be reinvested to ensure the sustainability of the local destination and would be used to provide public amenities for tourists and residents.

There is a second rationale for this in so far as tourist taxation generates revenues that governments can use for specific purposes. As the United Nations World Tourism Organisation noted: "Not only are tourists easy to collect taxes from (i.e. when they buy their airline ticket, depart or arrive at an

airport or pay their hotel bill), but it is often the case that the tourist will not be a voter in the country or region where the tax is levied". It is obviously needed that governments levy taxes on overseas tourism, rather than on domestic one. Indeed, a welfare-maximizing government, in order to raise revenues from overseas tourism taxation, has to discriminate between domestic and overseas tourism consumption and impose a tax surcharge on foreign tourists. Some governments are able to discriminate between domestic and tourism consumption and tax the latter at an higher rate.

"In addition to levying a general tourism tax, in the social optimum the government should also discriminate between domestic and overseas tourism consumption, in such a way that a positive tax surcharge is imposed on foreign tourists to generate more revenues from taxes on overseas tourism. Our study has also shown that the optimal rate of tax surcharge is decreasing in terms of both the elasticity of foreign demand for tourism and the congestion externality of tourism."<sup>3</sup>

Taxing tourism may be more efficient and equitable than levying tax on other sectors<sup>4</sup>. Indeed, tourism tax can lead to an higher domestic welfare. Tourists raise the demand and an higher demand means more revenues due to an higher tax base.

#### 4. Tourism tax in Italy: some critical issues

In Italy, national government doesn't charge any tourism tax, but a recent legislative decree established that local governments are free to decide their own policies. Since the Italian central government has to deal with the financial crisis (like many others), during last years, it tends to delegate to local governments the collection and management of many local taxes. Italian regulations allows bigger cities and tourist cities to impose a tourism

---

<sup>3</sup> Chang, J. J. *et al.* (2011).

<sup>4</sup> Gooroochurn, M., & Sinclair, M. T. (2005).

room tax. Accommodation taxes are quite common since they are easily collectable and have a large base.

To be defined as a tourism city, each one has to receive a sort of authorization by the local government.

Indeed, the legislative decree n. 23/2011, article 4, establishes that subjects as bigger cities, unions of municipalities, art cities and touristic cities may levy a tourist tax which maximum amount should be less than €5.00. The principle is that tax should be proportional to the hotel category.

The legislative decree also affirms that the revenues collected thanks to the tourist tax should be used in order to improve tourism, including specific maintenance interventions for natural and cultural heritage.

After refining the framework, when we started to deepen the analysis, some issues rapidly arose.

Our intention was first to isolate every city or town that adopted a tourism tax and then to understand which kind of tax each local government chose and how they fixed the amount corresponding to the different types of accommodations.

Since, in most cases, taxes have been levied since last summer, it was too early to understand the wider effects derived by the application of the tax. We could only try to delineate which were the conditions that favored (or rather that caused) the imposition of this new tax burden.

So, as an early stage analysis, we hypothesized that some factors exercised influence over this decision that actually has strong political and strategical implications.

Anyway, as we anticipated, the first empirical approach to tourism taxation in Italy presented some problems.

First of all, the entry of each town in the regional list. Each regional government had to draw up a list of the towns to which allowing the adoption of a tourism tax. We can see the ratio beneath this strategical decision. Indeed, local governments surely better know the geomorphological, cultural and natural characteristics of the area. Anyway, this decentralization may

provoke a lack of homogeneity among the towns that may or may not levy a tourism tax according to the regions in which they are located.

This is maybe the reason why, recently, national government declared that every municipality will be in the position to choose whether or not to impose a tourism tax and will need no longer to be included in any regional list.

Another critical issue is related to the national coordination of the municipalities that have imposed a tourism tax. Indeed, since there is no obligation for these municipalities to communicate their decision to a central authority, at the moment is almost impossible to know the exact number of the municipalities that already adopted a tourism tax.

This is the reason why, despite the intentions, we are not presenting a full list of these municipalities, that we only present in the statistical appendix. The attempt we made cannot be considered as exhaustive and it can't even be used for further statistical elaborations.

The lack of a coordination by the central government has also some kinds of political implications. Indeed, national government has no chance to control the process even in order to make the necessary adjustments. From a strategic point of view, the fact that national government does not know how many municipalities adopted a tourism tax weakens its role and its ability of managing even the political strategies related to the collection of revenues<sup>5</sup>.

We noticed that there is also some confusion about the application of the tax. Indeed is not unusual to find that some hotels included the tax in the final price, while some others leave it separate.

Finally, many years ago, Fish<sup>6</sup> showed that, in some cases, even if government imposes a tax on hotel bednights, hoteliers cannot increase prices, because they have to face a strong competition from other similar destinations. And we do know that this is the case of Italy, especially regarding the sea towns. National and international tourists may choose Croatia, Spain or Greece even thanks to the lower prices they offer.

---

<sup>5</sup> National government doesn't collect revenues. Municipal governments have the duty to collect tourism taxes.

<sup>6</sup> Fish, M. (1982).



All these factors made it impossible for us to continue with a quantitative study and forced us to carry out a qualitative analysis.

## 5. Tourism tax in Italy: an qualitative analysis

Tourism tax in Italy essentially is an accommodation tax. Indeed, room taxes meet the criterion of effectiveness: they are simple, have Pigouvian properties and allow local governments to capture some of the revenues generated by tourists inflow in their destination.

There are many municipalities that adopted tourism tax since its introduction: this is the case of famous cities like Venice, Rome, Florence, Palermo or Taormina. We won't linger on the critical issues that emerged during the research, to which we decided to dedicate an entire paragraph, in which we explain the reasons why we couldn't statistically treat the collected data. So, we will only try to outline the main characteristics of the tourism taxes that have been adopted by the Italian municipalities.

Our first observation is that, in most cases, tourism tax respects the principle of progressiveness. In Italy, accommodation facilities are usually rated with stars, from 1 to five (or plus). By and large, hotels (or similar) with no stars or with one or two stars are charged with tax which maximum amount is 1€. Structures with 5 stars are charged with a tax which amount varies from 3 to 5€. As we said, the evidence showed that, in almost every case, progressiveness is related to the rating of accommodation facilities. Only Ancona chose to link progressiveness to the amount spent for an overnight stay. For example, after the application of the tax, an overnight stay which amount is less than 20€ will be charged with an extra amount of 0,50€, a price less than 50€ will be charged with 1€ and so on.

Secondarily, in almost every municipality tourism tax is levied on a maximum of overnight stays. There is no municipality that overcomes 15 nights. In

some cases<sup>7</sup>, the amount of the tourist tax is higher for the first days and then it declines for the remaining days.

Finally, almost everywhere, municipalities provided some kinds of exemption. Usually, young people aged less than 13 are not charged, as well as disabled people with their companions and, often, coach drivers and tourist guides.

## 6. Conclusions

During the last decades, tourism has become a mass-consumption practice, even thanks to significant price reductions. Due to the huge volume of national and international tourists, we finally found out that tourism is a good with external costs.

It is a shared opinion that, in the presence of negative externalities, governments should find the way to internalize external costs and they may do this by introducing a specific taxation. Higher revenues collected this way may be spent by governments to develop tourism industry, or even to provide infrastructures and new services for resident population.

This is why even Italian government recently approved a legislative decree that allows municipalities to levy an accommodation tax. To do so, each regional government had the duty to draw up a list of the municipalities that could adopt the tourism tax.

Our analysis of this phenomenon, that should have been quantitative, has been strongly affected by some critical issues that immediately emerged.

First, the decision to decentralize the management of revenues collection finished to provoke a lack of homogeneity among the municipalities that could levy a tourism tax and those that could not, only on the basis of the regions in which they are located.

Probably even to solve this situation, very recently, national government established that every municipality will be in the position to choose whether

---

<sup>7</sup> Fiesole and Salve.

or not to impose a tourism tax and will need no longer to be included in any regional list.

Second, since there is no obligation for the municipalities that chose to levy a tourism tax to communicate their decision to a central authority, at the moment is almost impossible to know the exact number.

These factors made it impossible for us to continue with a quantitative study and forced us to carry out a qualitative analysis.

The main outlines worth highlighting are:

1. that many municipalities adopted tourism tax since its introduction;
2. that tourism tax respects the principle of progressiveness;
3. that, almost everywhere, municipalities provided some kinds of exemption.

## Statistical appendix

*Table 1 - Municipalities that imposed a tourism tax - 2011*

MUNICIPALITY	REGION	AREA	CITY SIZE	GDP 2007 pro capite
ACI CASTELLO	SICILY	INSULAR	18.031	11.838
ALBEROBELLO	APULIA	SOUTH	11.013	8.547
ANACAPRI	CAMPANIA	SOUTH	6.768	9.647
ANCONA	THE MARCHES	CENTRAL	102.997	14.616
BARI	APULIA	SOUTH	320.475	11.289
BELLAGIO	LOMBARDY	NORTH-WEST	3.078	13.202
BELLUNO	VENETO	NORTH-EAST	36.599	15.717
BORDIGHERA	LIGURIA	NORTH-WEST	10.746	11.016
CALENZANO	TUSCANY	CENTRAL	16.462	13.867
CAPRI	CAMPANIA	SOUTH	7.349	12.014
CASERTA	CAMPANIA	SOUTH	78.693	11.259
CASSANO ALL'IONIO	CALABRIA	SOUTH	17.587	4.812
CATANIA	SICILY	INSULAR	293.458	8.683
COMUNI DEL LAGO DI GARDA	VENETO	NORTH-EAST		
COMUNI DEL LAGO DI GARDA	LOMBARDY	NORTH-WEST		
COSTIERA SORRENTINA (6 COMUNI)	CAMPANIA	SOUTH		
CUSTOMACI	SICILY	INSULAR	5.449	5.974
EOLIE	SICILY	INSULAR		
FERRARA	EMILIA ROMAGNA	NORTH-EAST	135.369	15.497
FIESOLE	TUSCANY	CENTRAL	14.341	17.640
FIRENZE	TUSCANY	CENTRAL	371.282	16.468
FRAMURA	LIGURIA	NORTH-WEST	716	12.950
GIARDINI NAXOS	SICILY	INSULAR	9.647	7.060
ISCHIA	CAMPANIA	SOUTH	18.828	8.832
LAGO MAGGIORE	PIEDMONT	NORTH-WEST		
MANDATORICCIO	CALABRIA	SOUTH	2.854	4.456
MENAGGIO	LOMBARDY	NORTH-WEST	3.273	12.587
MILANO	LOMBARDY	NORTH-WEST	1.324.110	21.358
MONTEPULCIANO	TUSCANY	CENTRAL	14.558	11.797
MONTESCUDAIO	TUSCANY	CENTRAL	1.946	10.871
OTRANTO	APULIA	SOUTH	5.548	8.493
PADUA	VENETO	NORTH-EAST	214.198	16.892
PAESTUM	CAMPANIA	SOUTH		
PORTO AZZURRO (ELBA)	TUSCANY	CENTRAL	3.578	10.749
RIMINI	EMILIA ROMAGNA	NORTH-EAST	143.321	12.059
ROMA	LAZIO	CENTRAL	2.761.477	15.651
RODI GARGANICO	APULIA	SOUTH	3.673	6.203
ROSSANO CALABRO	CALABRIA	SOUTH	38.422	5.914
SALERNO	CAMPANIA	SOUTH	139.019	11.927
SALVE	APULIA	SOUTH	4.708	5.121
SAN BENEDETTO DEL TRONTO	THE MARCHES	CENTRAL	48.262	11.177
SAN VITO LO CAPO	SICILY	INSULAR	4.366	6.583
SCIACCA	SICILY	INSULAR	41.066	6.335
SESTO FIORENTINO	TUSCANY	CENTRAL	47.623	14.659
TORINO	PIEDMONT	NORTH-WEST	907.563	14.919
VARENNA	LOMBARDY	NORTH-WEST	812	15.533
VEGLIE	APULIA	SOUTH	14.269	5.273
VENEZIA	VENETO	NORTH-EAST	270.884	14.946
VICENZA	VENETO	NORTH-EAST	115.927	14.848
VILLASIMIUS	SARDINIA	INSULAR	3.635	9.318

Figure 1 - Municipalities that imposed a tourism tax by regional area - 2011

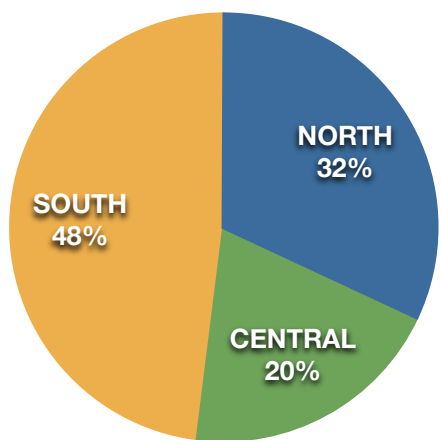


Figure 2 - Municipalities that imposed a tourism tax by region - 2011

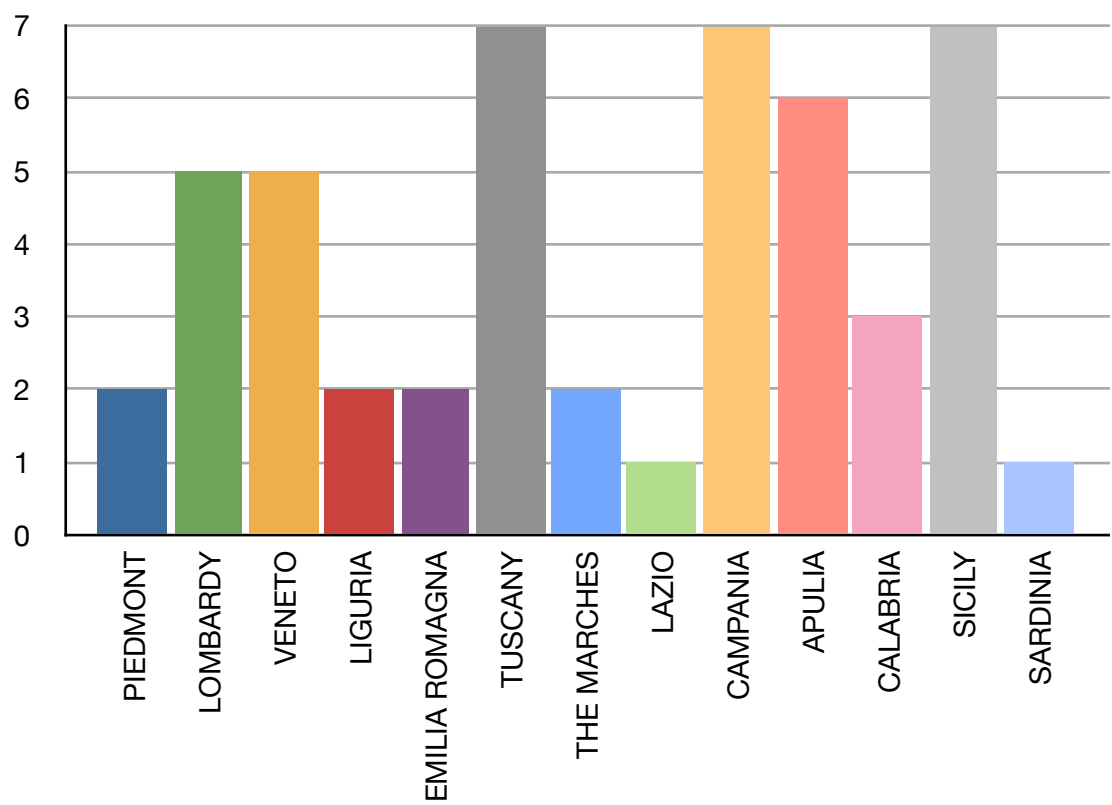


Figure 3 - Dimension of the municipalities that imposed a tourism tax

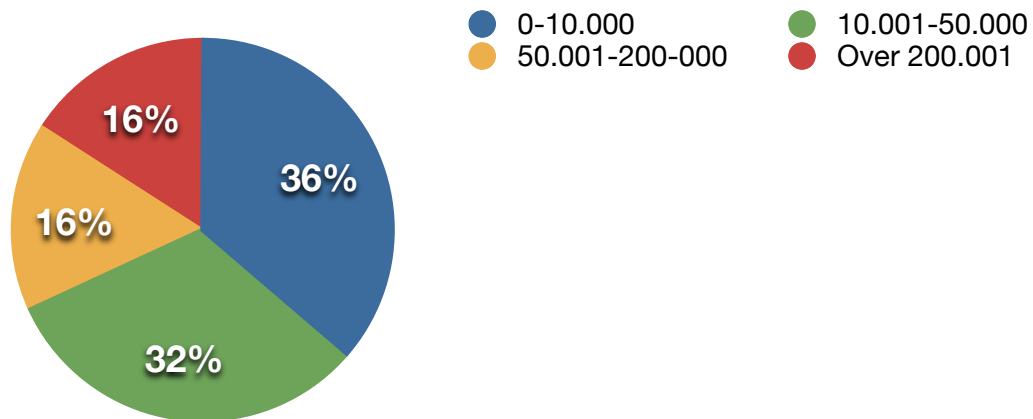


Figure 4 - Municipalities that imposed a tourism tax which residents are <50.000

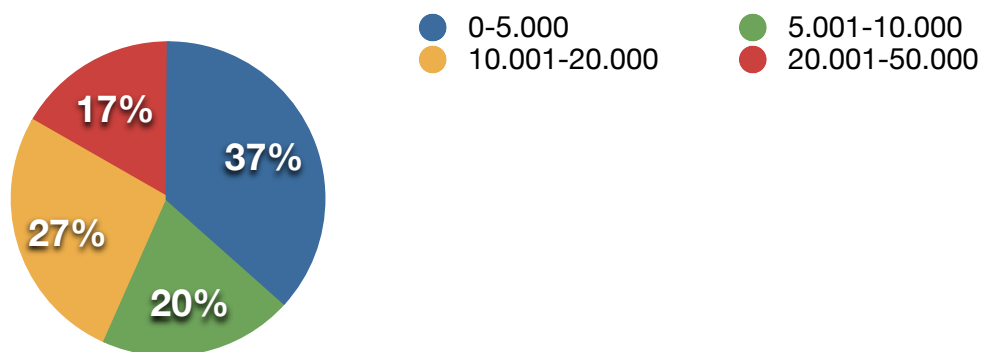
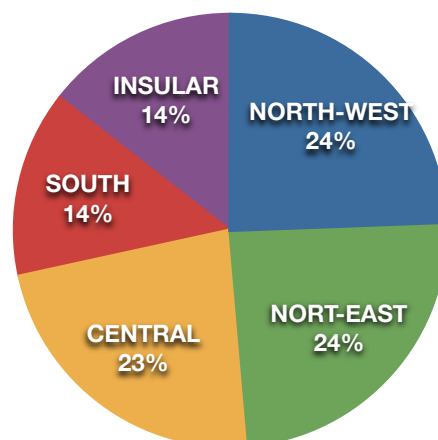


Figure 5 - GDP per capita of the municipalities that imposed a tourism tax



## References

Aguiló, E., Riera, A., & Rosselló, J. (2005). The short-term price effect of a tourist tax through a dynamic demand model. The case of the Balearic islands. *Tourism Management*, 26, 359-365. CERCA NUMERO

Ballard, C., Shoven, J. & Whalley, J. (1985). A General Equilibrium Model for Tax Policy Evaluation. Chicago: University of Chicago Press.

Bird, R. M. (1992). Taxing tourism in developing countries, *Journal of World Development*, 20 (8), 1147. CERCA PAGINE

Bonham, C., & Byron, C. (1996). Intervention analysis with cointegrated time series: the case of Hawaii hotel room tax. *Applied Economics*, 28 (10), 1281-1293.

Bonham C., Fujii E., Im E. and Mak J. (1991). The impact of the hotel room tax: an interrupted time series approach, *National Tax Journal* , Vol. 45, pp. 433-441.

Candela, G., Castellani, M., & Dieci, R. (2008). Economics of externalities and public policy. *International Economic Review*, 55, 285-311. CERCA NUMERO

Chang, J. J., Lu, L. J., & Hu, S. W. (2011). Congestion externalities of tourism, Dutch disease and optimal taxation: macroeconomic implications. *The Economic Record*, 87 (276), 90-108.

Chao, C. C., Hazari, B. R., & Sgro P. M. (2004). Tourism, globalization, social externalities and domestic welfare. *Research in International Business and Finance*, 18 (2), 141-149.

Cushman, C. A., Field, B. C., Lass, D. A., & Stevens, T. H. (2004). External costs from increased island visitation: Results from the southern Thai islands. *Tourism Economics*, 10 (2), 207-219.

Delipalla, S., & Keen, M. (1992). The comparison between ad valorem and specific taxation under imperfect competition. *Journal of Public Economics*, 49, 351–367.

Figini, P., Castellani, M., & Vici, L. (2007). Estimating tourist externalities on residents: A choice modeling approach to the case of Rimini. *Fondazione Eni Enrico Mattei*, Working Paper No. 76.2007.

Fish, M. (1982). Taxing international tourism in West Africa. *Annals of Tourism Research*, 9, 91-103.

Forsyth, P. & Dwyer, L. (2002). Market power and the taxation of domestic and international tourism. *Tourism Economics*, 8 (4), 377-399.

Gago, A., Labandeira, X., Picos, F., & Rodriguez, M. (2009). Specific and general taxation of tourism activities: Evidence from Spain. *Tourism Management*, 30, 381–392. CERCA NUMERO

Gooroochurn, M., & Sinclair, M. T. (2005). Economics of tourism taxation. Evidence from Mauritius. *Annals of Tourism Research*, 32 (2), 478-498.

Gómez, C. M., Lozano, J., & Rey-Maqueira, J. (2008). Environmental policy and long-term welfare in a tourism economy. *Spanish Economic Review*, 10 (1), 41-62.



Jensen T. and Wanhill S. (2002). Tourism's taxing times: value-added tax in Europe and Denmark, *Tourism Management*, 23, 67-79. CERCA NUMERO

Liu, J. C., Sheldon, P. J., & Var, T. (1987). Resident perception of the environmental impacts of tourism. *Annals of Tourism Research*, 14, 17-37.

Musgrave, R. A. (1959). *The Theory of Public Finance: a Study in Political Economy*. New York: Mcgraw-Hill.

Palmer, T. & Riera, A. (2003). Tourism and environmental taxes with special reference to the "balearic ecotax". *Tourism Management*, 24, 665-674.

Palmer-Tous, T., Riera-Font, A., & Rosselló-Nadal, J. (2007). Taxing tourism: The case of rental cars in Mallorca. *Tourism Management*, 28, 271–279. CERCA NUMERO

Pazienza, P. (2011). Should we tax tourism? Theoretical justifications from the economics of non-renewable resource use. *Environmental Economics*, 2 (1), 8-16.

Piga, C. A. G. (2003). Pigouvian taxation in tourism. *Environmental and Resource Economics*, 26, 343-359. CERCA NUMERO

Pintassilgo, P. & Silva, J. (2007). Tragedy of the commons' in the tourism accommodation industry. *Tourism Economics*, 13 (2), 209-224.

Schubert, S. F. & Brida, J. G. (2008). Dynamic effects of subsidizing the tourism sector. *Tourism Economics*, 14 (1), 57-80.

Schubert, S. F. (2010). Coping with externalities in tourism: a dynamic optimal taxation approach. *Tourism Economics*, 16 (2), 321-343.

Sheng L. and Tsui Yanming (2009). Taxing tourism: enhancing or reducing welfare? *Journal of Sustainable Tourism*, 17 (5), 627-635.

Skeath, S., & Trandel, G. (1994). A pareto comparison of ad valorem and unit taxes in noncompetitive environments. *Journal of Public Economics*, 53, 53–71.