

PUBLIC INVESTMENT IN CULTURE AND TERRITORIAL GROWTH: UNWRAPPING THE IMPACT OF CULTURE

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ABSTRACT

Recently, increasing attention is paid to the evaluation of culture in terms of impact upon the economy. Live performing arts shows, temporary exhibitions, museum and monuments are considered the source of private expenditure for hotels, restaurants, transports, etc.; in such a way, the monetary outcome generated by cultural experience proves higher than public subsidies given to cultural supply. On the other hand, when impact studies try to go beyond monetary spillovers, qualitative approach is preferred in order to measure social and cultural impacts, resulting in interesting insights yet highly case-to-case based and therefore hardly scalable and comparable with the other branch of impact studies.

This paper is an exploratory endeavor in combining the two approaches. It focuses upon the impact exerted by cultural experiences on the territorial economy through a selection of 7 qualitative variables (social capital, young unemployment, family relationships, friend relationships, urban green, social participation and cultural employees) for the Italian Municipalities during the period 2002-2017. The analysis proves that combining a structured, rigorous method drawn from economics tradition with an attention for qualitative data is not just possible but necessary to elaborate consistent policy implications.

KEYWORDS: impact of culture, economic growth, public policy

LITERATURE REVIEW

Literature on the impact of culture can be organised on different levels that seldom prove comparable. First, endeavours of evaluating the impacts can be theoretical or empirical, publicly or privately commissioned, where private commissions include scholars' contributions. On a second level, impact analysis can assess specific organisations or projects' performances or they can assess more generally policies and describe situations. Lastly, impact studies differ from each other for the core of their focus, that can be monetary, economic, social, territorial. Overall, contributions seek to find a way to prove -or justify- that culture is worthwhile of being publicly or privately financed.

A literature overview depicts two main approaches and show the necessity of a third. First efforts in this field aim at explaining the importance of culture and the arts in terms of economic impacts such as number of visitors, amount spending, employment (Myerscough, 1988, Saayman and Saayman, 2004). The problem here is that these studies prove limited in terms of typologies of impacts, due to the limitations of chosen models. In addition, they tend to evaluate single cases rather than a 'system' of at least the urban scale. On the other hand, contributors started considering the importance of broader types of impact, and social impacts analyses arose. This is the case of a very broad range of studies carried out by non-just economists. Studies on the social impact look for social capital, creative atmosphere, well-being and quality of life, therefore they are conducted via surveys and qualitative analysis. The problem here is that these kinds of analysis are extremely dependent on the design of questionnaires and on the interpretation of them (see Matarasso, 1997 criticized by Merli, 2002 and Belfiore, 2006). The result is that they might be anecdotal or offer non-exportable outcomes.

Prevailing reading of impact studies is the assessment, typically in advance, of the impacts that an activity has on its surrounding extents (Burdge and Vanclay 1996). Economics of the arts, later addressed to as cultural economics (Dekker 2015), is traditionally concerned with the question "what is the contribution of the cultural sector to the economy". A political debate about valuing the arts and culture and their impacts arose in Britain with New Labour policies around 1998 (F Matarasso 1996; Sara Selwood Associates 2010; O'Brien and Britain 2010), that first underpinned the instrumental value of culture.

In order to carry out a measurement of the sector, its impacts, and performances, cultural statistics are needed. Data on attendance, access, creative involvement, as well as cultural employment and trade of cultural goods are usually gathered, in order to build indicators describing cultural participation, performance of cultural institutions, quality of life, cultural development, cultural value (Throsby 2013), although some of them appears of quite unclear meaning and lack a practical counterpart.

When it comes to analyse the impacts of culture on cities and society, current praxis tends to focus on quantitative studies, through the use of conventional econometric approaches. Studies that seek to assess the impacts of culture collect data on number of visitors, their expenditure (hotels and restaurants), employment, tickets sales, tax revenues, foreign earnings and multiplicative and 'spill-over' effects.

A first attempt within the discipline is therefore to measure the role of culture and, mostly, the creative sector, a common mainstream method is to assess the gross value added and other aggregate data that are proven to have limitations since they cannot observe market transactions, therefore any other "additional social benefits or spillovers generated by creative activity remain subsumed in the TFP¹" (Goodridge 2013), that is precisely what this work is interested in capturing.

The importance of the measurement in the cultural sector is nowadays crucial because of an ongoing debate on what is culture and what is art, and consequently one on what should be funded and what should not, a debate that calls for the argument on opportunity costs and the instrumental use of culture as opposed to its intrinsic value (Snowball 2011). Evaluation studies capturing instrumental values, those that rely on an actual transaction, became very popular because they could easily attach a monetary indicator to a certain cultural sector, project, or policy.

Methods have been later developed in order to overcome the limitation of monetary evaluation such as contingent valuation (ibidem), generic social outcomes, generic learning outcomes, social return on investment (Bollo et al. 2013) that in fact focus on non-market elements, such as social and cultural

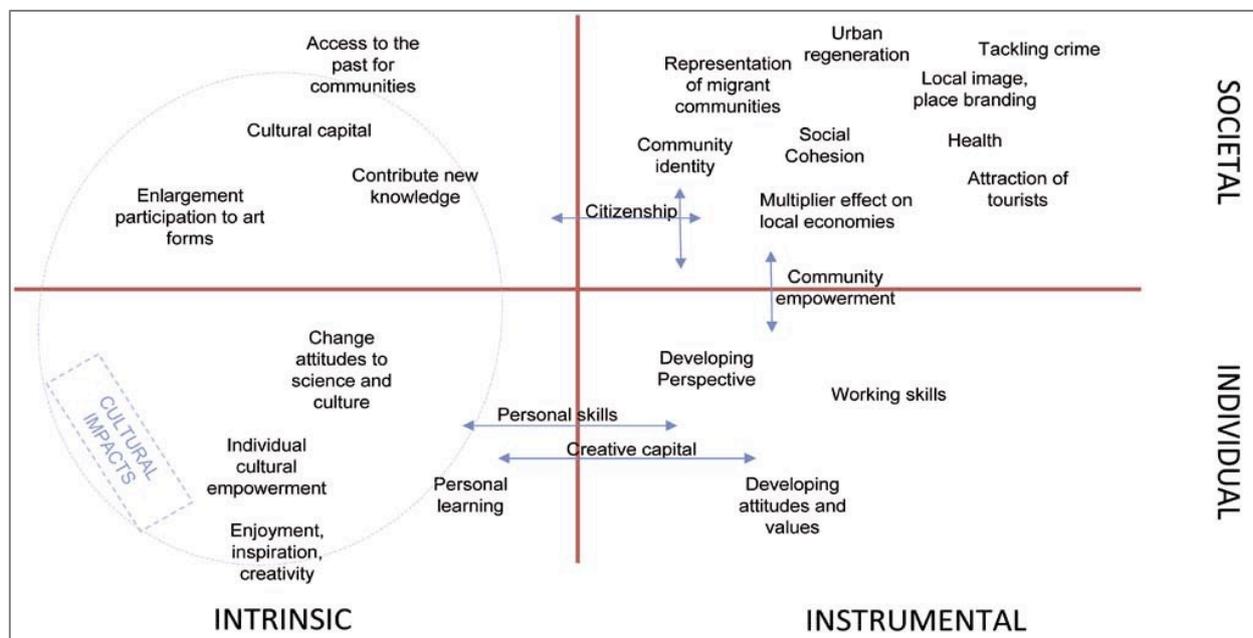
¹ TFP is defined as "that part of growth unexplained by the contributions of factor inputs" (Goodridge 2013, 175)

capital, social values, or trust. The problem is that, from an economic methodology standpoint, these elements are extremely difficult to measure.

Bollo (ibidem) traces the evolution of impact studies. Seminal contributions in the field of impact evaluation focused on the economic feature of the impact with consequences on political agendas (Myerscough, 1988). Soon, the attention switched towards social issues related to softer approaches. In this sense, Matarasso's "Use or ornament?" is a milestone, although criticized by Merli (Merli 2002) and Belfiore (Belfiore 2006) because of its survey-based methodology that would result in anecdotal and generic outcomes. Matarasso elaborated the renowned fifty social impacts of cultural participation divided in six main branches: personal development, social cohesion, community empowerment, local image and identity, imagination and vision, health and wellbeing (François Matarasso 1997).

The general trend of evaluation studies is the pursuit of a "broader spectrum of analysis" (Bollo et al. 2013, 19), that the author defines "holistic approach" (ivi) and that would manage to explain and assess culture in accordance with its various values. With direct respect to museums, for instance, Bollo distinguishes three main tiers of impact: economic, social and environmental and gives an interestingly rich social impacts maps (see figure).

Figure 1 Social impact of culture map



Source: Bollo (2013), p. 22.

When social impacts of culture are to be assessed, problems of method arise. Reeves (2002) reviews the debate on this topic. She outlines the main reasons why proper measurement is lacking. Beyond a general lack of robust, comparable data, she finds:

- . lack of interest by the arts world (outside the context of funding relationships) in developing evaluative systems through which to prove its value
- . evaluation regarded as additional, rather than integral to arts activity, requiring disproportionate resources in the context of most arts organisations' limited budgets
- . a lack of a thorough and formal approach to evaluation
- . lack of planning norms for arts facilities, against which to measure the quality or quantity of provision
- . organisations' primary motivation for undertaking evaluation being to fulfil funders' objectives rather than evaluating the impact of their activity on a particular neighbourhood
- . data collection being perceived as a chore rather than a tool to help organisations improve their own practice

. cultural resistance to, and negative perceptions of, evaluation by those involved in arts projects, who often regard it as intrusive (Reeves, 2002: 34).

She evidences that “much of contemporary debate and research is focused around developing workable and appropriate frameworks and indicators for measuring the effectiveness of arts interventions in achieving a range of socio-economic outcomes” (Reeves, 2002: 45). Nonetheless, she acknowledges the difficulty researchers encounter in quantifying impacts.

The key issue is that scientific methods are questioned when they aim at evaluating complex elements such as quality of artistic outputs, quality of life, cultural democracy, social capital, and effects in individuals’ habits due to arts projects. These outcomes are not always clearly detectable, measurable, interpretable.

A further difficulty is the element of time. Social effects of art projects can show in the long run, they can have lifetime last or be unexpected. Some talk of ‘cultural legacy’ and suggests longitudinal methods of evaluation (Garcia, 2006), others propose ad hoc approaches in order to meet the peculiarities of singular projects when impacts show late on time (Dal Pozzolo, 2004), or mixed methods of evaluation such as ‘triangulation’ (Jermyn, 2001).

Regardless the difficulty in finding a comprehensive method to assess the impact of culture, policies increasingly use culture and the arts to promote social innovation and urban development (Kunzmann 2009; Nussbaumer et al. 2010) and the branch of the ‘creative city’ directly aims at testing and conceiving ways to let creativity lead the social and economic development of urban areas, both on a theoretical and a practical level (Landry and Bianchini 1995; Florida, Mellander, and Stolarick 2008; McGuigan 2009).

With respect to the quantitative indicators used in assessing the impact of culture, Madden (2005) depicts a comprehensive overview. Indicators are used for different purposes: monitoring/evaluation; learning; strategic effects; and advocacy. This leads to different types of indicators, that work on different levels, namely *macro* (sector-wise), *meso* (regional or cross-agency policy), and *micro* (performance of events and arts programmes). Such indicators can be: cultural indicators (such as ‘quality of life’ indicators) and performance indicators for the cultural sector (such as financial indicators for the cultural industries and cultural institutions); cultural indicators and cultural policy indicators; intrinsic indicators and instrumental indicators; arts indicators and cultural indicators. The paper aims at tackling such a complexity through a varied range of determinants in order for the mere monetary measure of the impact to be overcome in the light of its fungibility with the impact generated by any economic and productive activities and therefore of its inability to capture the specific features of cultural investments and projects as drivers of unique benefits for the economy and society.

Previous endeavors in studying the relationship between public expenditures and variables indicating the quality of life in a certain areas seem difficult to find in hefty amounts. Mafrolla and D’Amico (Mafrolla, Amico, and Mafrolla 2016) studied the impact of public expenditure in leisure activities such as tourism, sport, and culture on the quality of life of citizens. Using a similar approach, Dalle Nogare and Galizzi (Dalle Nogare and Galizzi 2011), yet with a different focus, analysed the relationship between public expenditure in culture and electoral cycles in 106 municipalities in Italy. Although impact studies trying to analyse the impact of culture on society that combine an economic analytical approach to an interest for social values are hard to find in literature, the development of such methodologies appears important because they are “about understanding better the nature of arts activities, improving the articulation of arts policies, and considering the complex interrelationships between statistics and policy, particularly the impacts that measurement can have on ‘stakeholders’ in the arts and cultural sectors.” (Madden, 2005 p. 239).

Because of the limitations of impact of culture studies carried on since now, this paper tries to fill the gap combining the quantitative and the qualitative approach to shade a broader light on impact of culture.

EMPIRICAL MODEL

The aim of this study is to investigate the impact of culture on local environment. We test this hypothesis by estimating the following model:

$$Impact_{jit} = \beta_0 + \beta_1 Cult_exp_pc_{it} + \beta_2 VA_pe_{it} + \beta_3 Crime_{it} + \beta_4 Fin_pres_pc_{it} + \beta_5 Area_i + \varepsilon_{it}$$

Where the impact of cultural expenses is measured in several (j) ways: social capital, young unemployment rate, family' relationship, friend's relationship, urban green, social participation and the number of employees in the cultural sector. The coefficient of major interest is β_1 , which measures the relationship between per capita cultural expenses to municipality i in year t ($Cult_exp_pc_{it}$) and the dependent variable. In this study the cultural expenses are calculated as the sum of current account expenses (operating expenditures) and capital account expenses (investments)². Furthermore, to account for the varying sizes of municipality the expenses are expressed in relation to the size of the municipal population.

In order to estimate the impact of cultural expenses on local environment, we control in our model for other variables. The value added per employee is added to take into account the wealth heterogeneity between municipality. The level of crime in the province is also added to control for differences in the Italian provinces, whilst the financial pressure per capita is added to control for the robustness account in the municipality. In order to deal with unobserved geographical heterogeneity, we include a set of indicator functions that take the value of one for each of the four Italian macro-area: North_west, North_east, Centre and South and Islands (Area).

The model is estimated using a panel data instrumental variable methodology to consider the possible endogeneity between cultural expenses, value added, level of crime and the variable that measures the impact of culture. Instruments are the three lags of the same variable.

DATA, VARIABLES AND DESCRIPTIVE STATISTICS

The data used in this analysis are derived from two sources: AIDA Public Administration and ISTAT (Istituto Nazionale di Statistica – the National Institute of Statistics). The AIDA Public Administration dataset is carried out by Bureau Van Dijk and contains all the information on the balance sheet of the 8168 Italian Municipalities.

Table 1 describe the variables and the source of the data used in the analysis, whilst Table 2 presents summary statistics of each variables.

² adding residuals.

Table 1. Definitions and sources of the variables used in the analysis

Variable	Definition	Sources	Years
<i>Dependent variables</i>			
<i>Social Capital</i>	Employees of cooperatives on total employees (percentage)	ISTAT	2001-2016
<i>Unempl.</i>	Young unemployment rate	ISTAT	2011-2013
<i>Family Relat.</i>	People aged 14+ who are very satisfied with family relationships (percentage)	ISTAT	2005-2017
<i>Friend Relat.</i>	People aged 14+ who are very satisfied with family relationships (percentage)	ISTAT	2005-2017
<i>Urban green</i>	Availability of urban green in the provincial capitals by region	ISTAT	2011-2017
<i>Social participation</i>	People aged 14+ who have had at least one social activity in the last 12 months (percentage)	ISTAT	2005-2017
<i>Cultural Employees</i>	Employed in cultural and creative enterprises for 100 employees	ISTAT	2011-2017
<i>Independent variables</i>			
<i>Cultural expenses (Total)</i>	<i>Cultural expenses (Total): current expenses + capital expenditure</i>	AIDA - PA	2002-2017
<i>VA per employee</i>	Value added per employees	ISTAT	2002-2016
<i>Crime</i>	Thefts reported per 1,000 inhabitants	ISTAT	2004-2017
<i>Financial pressure per capita</i>	<i>Financial pressure per capita</i>	AIDA - PA	2002-2017
<i>Area</i>	Four dummy variable for the Italian Macro-area: North_west, North_east, Centre and South and Islands	ISTAT	..
<i>Population</i>	Number of inhabitants in the municipality	AIDA - PA	2002-2017
<i>IPC</i>	Provincial consume price index	ISTAT	..

Table 2. Summary statistics

Variable	Obs	Mean	Std. Dev.	Min	Max
Dependent variables					
<i>Social Capital</i>	121,462	4.134	1.524	1.094	11.359
<i>Unempl.</i>	104,830	27.972	14.292	2.826	73.935
<i>Family Relat.</i>	106,184	35.704	6.225	21.000	48.300
<i>Friend Relat.</i>	106,184	25.196	4.254	15.100	34.600
<i>Urban green</i>	57,176	46.425	80.200	6.900	574.200
<i>Social participation</i>	106,184	25.543	5.588	13.400	44.500
<i>Cultural Employees</i>	57,176	3.402	0.740	1.300	5.000
Independent variables					
<i>Cultural expenses (Total)</i>	127,666	0.030	0.125	0.000	31.718
<i>VA per employee</i>	122,881	51797.780	10866.490	26466.060	102320.400
<i>Crime</i>	111,083	20.492	8.994	2.294	60.681
<i>Fin_pres_pc</i>	127,681	0.630	0.541	0.000	31.184
<i>North_west</i>	130,688	0.376	0.484
<i>North_east</i>	130,688	0.187	0.390
<i>Centre</i>	130,688	0.124	0.329
<i>South_Islands</i>	130,688	0.313	0.464

Descriptive analysis is also shown in Figures 1-3. Figure 1 shows the per capita current and capital cultural expenses in all the Italian municipalities. As expected, current and capital expenses show a different pattern. Both expenses are increasing until 2008, later on cultural expenses falls drastically until 2015, whilst the current one shows a smoother pattern. This can be due to the crises of the public finances that also impact on the balance sheet of the municipalities.

Figure 1: Per capita current and capital cultural expenses in the Italian municipalities

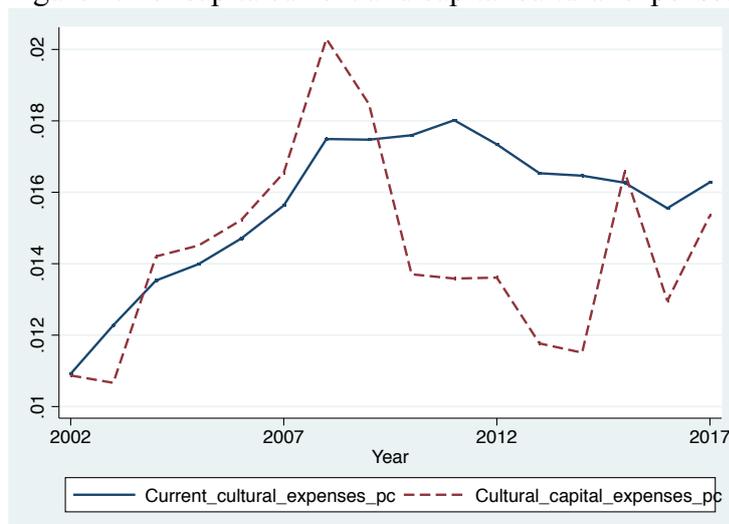


Figure 2 shows the average annual per capita cultural expenses in the Italian Municipalities by population size. The highest level of per capita cultural expenses is attributed to the mu-

municipalities with more than 50,000 inhabitants, followed by municipalities with less than 5000 inhabitants, than municipalities between 30,000 and 50,000 inhabitants, than between 30,000 and 50,000 inhabitants and, finally, by municipalities between 5000 and 15,000 inhabitants. This figure is important because it shows that there is no linear trend between population size and cultural expenses but other local factor can also be important. On average, small municipalities spend more than the other ones (except of the biggest municipalities). Finally, Figure 3 shows that also a different pattern exists in the for Italian macro-territorial area.

Figure 2: Average annual per capita cultural expenses in the Italian Municipalities by population size

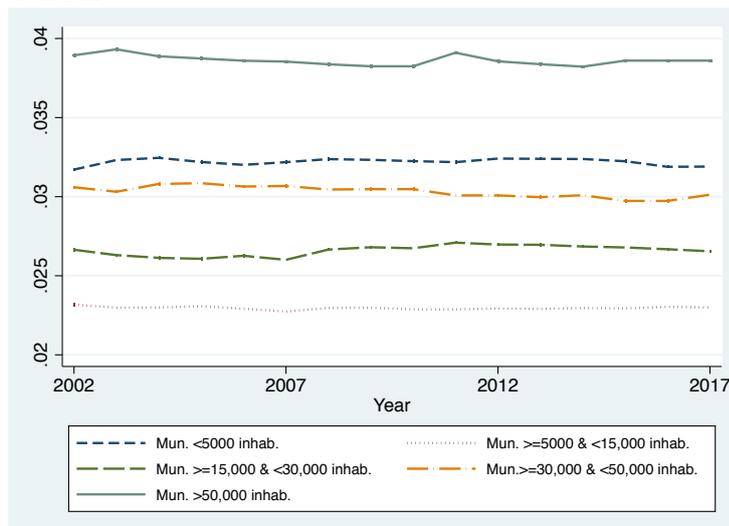
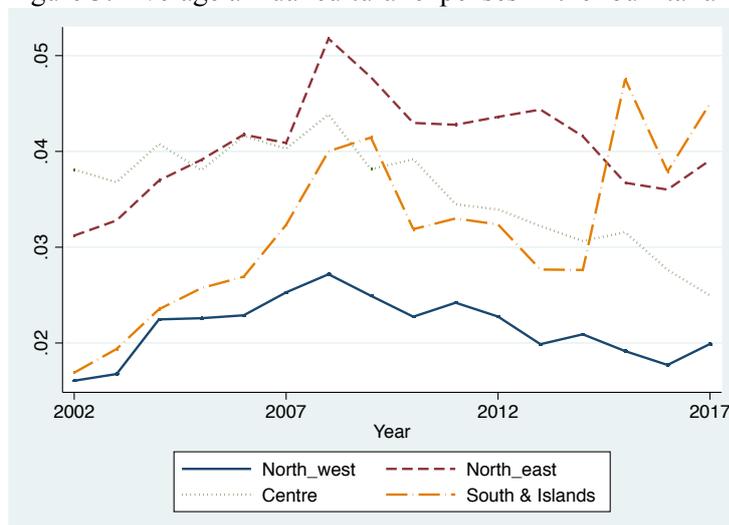


Figure 3: Average annual cultural expenses in the four Italian Macro-area



EMPIRICAL PRELIMINARY RESULTS

Table 3 shows the impact of cultural expenses on local environment for all the Italian municipalities in our sample. As presented in the empirical model, we measure the impact of culture on seven different variables: social capital, young unemployment rate, family relationships, friendship relationships, urban green, social participation and employees in the cultural sector. As expected, the correlation-coefficient between cultural expenses and the local environment is found to be positive and highly significant in all the estimations, with the only ex-

pected exception of the young unemployment rate. In particular, in the first column, when we take into account the social capital, an increase of 1 percent on cultural expenses imply a 0.017% increase of social capital. We found that the highest impact is on the urban green variable.

The coefficient of the value added per employee variable is also found to be highly significant and of the expected sign in all the models estimated. In fact, it is always positive with the exception of the model that has as dependent variable the young unemployment rate. This variable shows a stronger impact compare with the cultural expenses, and this result is also expected. Our results suggest that an increase of 1 percent of the value added per employees imply and increase of 0.157 of the social capital.

The impact of crime on the local environment is always negative and significant with the exception of column 2 (young unemployment rate) and column 7 (cultural employees). Whilst, the first results is expected the same does not apply to the latter. In fact, an increase of the level of crime turn to be in an increase in the people employed in the cultural sector. This can only be explained with the fact that we took into account only the crimes reported to the authorities. In fact, often people are obliged to serve their sentences in sectors complementary to the culture sector.

The impact of financial pressure per capita on the local environment is not strong as the other variables reported above. In fact, it is negatively significant only with respect to the social capital, the young unemployment rate and the cultural employees.

The coefficients of the territorial dummies (North_west, North_east and South_Islands, Centre is the baseline category) turn to be highly significant supporting the pattern shown in Figure 3. However, this impact is not of the same sign for all the models. For example, North_west and North_east are significant negative compared with the central area of the country with respect to social capital, young unemployment rate, and cultural employees, whilst have a higher impact compared whit the Centre in the family and friendship relationships and urban green and social participation (the latter two only for the North_east area). The opposite impact is found for the South and Islands (with the exception of the last model) always compared with the Centre of Italy.

Tables 4 and 5 show the results for the same models presented in Table 3 for the municipalities with less than 15,000 inhabitants and for the municipalities with more than 15,000 inhabitants, respectively. With respect with the variable of our main interest (cultural expenses) results indicate the similar strong impact. The only exception is in Table 4 in the cultural employee's model (column 7), where cultural expenses show the expected results. What emerge from the latter table is that the impact of cultural in the local environment is always strong in the municipalities with more than 50,000 inhabitants. This can be due to the fact that these municipalities are the ones that spend more money in culture (see Figure 2). The sign and the significance of the other variables follow also the same pattern presented in Table 3.

Table 3. The impact of culture. All Italian municipalities

	Social Capital	Young unem- ployment rate	Family Relat.	Friend Relati.	Urban green	Social partici- pation	Cultural Em- ployees
<i>Cultural expenses (Total)</i>	0.017***	-0.009***	0.016***	0.014***	0.070***	0.012***	0.005***
	0.003	0.003	0.001	0.001	0.007	0.001	0.001
VA per employee	0.157***	-0.248***	0.218***	0.261***	1.694***	0.566***	0.110***
	0.040	0.030	0.010	0.009	0.083	0.011	0.014
<i>Crime</i>	-0.054***	0.190***	-0.019***	-0.032***	-0.808***	-0.119***	0.009*
	0.011	0.008	0.003	0.003	0.023	0.003	0.004
<i>Fin_pres_pc</i>	-0.016***	-0.022***	-0.0012722	-0.0021447	-0.0068205	0.0014105	-0.004*
	0.007	0.005	0.002	0.002	0.015	0.002	0.003
<i>North_west</i>	-0.119***	-0.183***	0.137***	0.087***	-0.020901	-0.0016242	-0.044***
	0.012	0.009	0.003	0.003	0.026	0.003	0.005
<i>North_east</i>	-0.115***	-0.431***	0.168***	0.120***	0.714***	0.174***	-0.187***
	0.013	0.010	0.003	0.003	0.028	0.004	0.005
<i>South_Islands</i>	0.199***	0.392***	-0.155***	-0.1776***	0.0311021	-0.259***	-0.439***
	0.013	0.009	0.003	0.003	0.026	0.004	0.005
<i>constant</i>	-0.116	5.489***	1.283***	0.536***	-12.610***	-2.522***	0.182
	0.422	0.314	0.109	0.099	0.880	0.120	0.154
Obs.	59,871	59,871	60,070	60,070	39,770	60,070	39,770
Wald chi2	1501.96	14044.99	29676.42	31973.23	3636.61	39709.09	20824.42
p-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Note: Standard Errors are reported in the table. Variables are expressed in logs. ***, **, * Indicate estimates that are significantly different from zero at the 99%, 95% and 90% confidence levels, respectively.

Table 4. The impact of culture. Municipalities with less than 15,000 inhabitants

	Social Capital	Young unem- ployment rate	Family Relat.	Friend Relati.	Urban green	Social participa- tion	Cultural Em- ployees
<i>Cultural expenses (Total)</i>	0.018***	-0.010***	0.015***	0.014***	0.069***	0.012***	0.006***
	0.004	0.003	0.001	0.001	0.008	0.001	0.001
VA per employee	0.126***	-0.251***	0.215***	0.258***	1.640***	0.569***	0.090***
	0.042	0.031	0.011	0.010	0.087	0.012	0.015
<i>Crime</i>	-0.0716***	0.190***	-0.013***	-0.025***	-0.790***	-0.116***	0.005
	0.012	0.009	0.003	0.003	0.025	0.003	0.004
<i>Fin_pres_pc</i>	-0.016**	-0.020***	-0.001	-0.002	-0.009	0.001	-0.005**
	0.007	0.006	0.002	0.002	0.015	0.002	0.003
<i>North_west</i>	-0.109***	-0.193***	0.139***	0.089***	-0.006	-0.001	-0.038***
	0.013	0.010	0.003	0.003	0.028	0.004	0.005
<i>North_east</i>	-0.101***	-0.443***	0.173***	0.123***	0.7524***	0.177***	-0.181***
	0.014	0.011	0.004	0.003	0.030	0.004	0.005
<i>South_Islands</i>	0.192***	0.389***	-0.149***	-0.171***	0.073***	-0.257***	-0.439***
	0.013	0.010	0.003	0.003	0.028	0.004	0.005
<i>constant</i>	0.276	5.520***	1.294***	0.540***	-12.088***	-2.554***	0.420**
	0.440	0.333	0.112	0.101	0.931	0.125	0.161
Obs.	59,871	53,606	53,797	53,797	35,570	53,797	35,570
Wald chi2	1501.96	12297.21	27167.83	28804.8	3203.94	34799.07	18077.57
p-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Note: See Table 3.

Table 5. The impact of culture. Municipalities with more than 15,000 inhabitants

	Social Capital	Young unem- ployment rate	Family Relat.	Friend Relati.	Urban green	Social participa- tion	Cultural Em- ployees
<i>Cultural expenses (Total)</i>	0.029**	-0.050***	0.047***	0.042***	0.122***	0.034***	-0.016***
	0.014	0.010	0.004	0.004	0.027	0.004	0.005
VA per employee	0.518***	0.053	0.163***	0.192***	1.670***	0.421***	0.285***
	0.141	0.095	0.042	0.038	0.256	0.038	0.051
<i>Crime</i>	0.098***	0.081***	-0.017	-0.028***	-0.684***	-0.080***	0.029**
	0.037	0.025	0.011	0.010	0.066	0.010	0.013
<i>Fin_pres_pc</i>	-0.136**	0.063	-0.084***	-0.064***	-0.038	-0.063***	0.050**
	0.063	0.043	0.019	0.017	0.106	0.017	0.021
<i>North_west</i>	-0.197***	-0.088***	0.111***	0.062***	-0.090	-0.017*	-0.077***
	0.036	0.024	0.011	0.010	0.064	0.010	0.013
<i>North_east</i>	-0.249***	-0.331***	0.121***	0.087***	0.411***	0.130***	-0.205***
	0.035	0.024	0.011	0.009	0.064	0.010	0.013
<i>South_Islands</i>	0.269***	0.404***	-0.179***	-0.207***	-0.172***	-0.272***	-0.432***
	0.038	0.026	0.011	0.010	0.068	0.010	0.014
<i>constant</i>	-4.370***	2.289**	2.054***	1.425***	-12.45***	-0.925***	-1.912***
	1.479	1.002	0.445	0.395	2.709	0.401	0.540
Obs.	6,265	6,265	6,273	6,273	461.87	6,273	4,200
Wald chi2	227.73	1697.63	2966.75	3591.12	461.87	5451.45	3086.93
p-value	0.000	0.000	0.000	0.000	0.000	0.000	0.000

Note: See Table 3.

CONCLUDING REMARKS

The outcomes of the empirical test carried out with reference to Italian municipalities appear to be encouraging with reference to the opportunity to extend and enrich the set of variables to be considered, and to address a wider sample of towns. Our starting point, emphasizing the insufficiency and fungibility of the conventional monetary measures of the impact of culture is confirmed by the eloquence of our analysis, where social and qualitative variables clearly appear to be influenced by the amount and dynamics of public expenditure for culture. This proves consistent with the institutional goal of public expenditure (*rectius*: of devoting tax revenues to public expenditure), which is not and cannot be the dimensional growth of monetary flows, but must be the increase in availability, accessibility and diffusion of public service which would prove otherwise denied to general enjoyment. Although our study should be considered a preliminary experiment, whose positive results require further theoretical elaboration and empirical analysis, we can agree upon its value also in terms of policy design: since the impact of culture upon the territorial economy and society is being exerted in specific areas, then its features can represent a consistent basis for the design of precise action and for targeting thematic areas, technical layers (such as infrastructure, human capital, territorial even diffusion, etc.), forms of action in order for the institutional goals of cultural policy to be effectively attained, also introducing appropriate forms of monitoring and sanction. Despite their prevailing social appearance, the areas of impact we examined reveal clear monetary implications: the reduction of urban crime implies a reduction in local public expenditure aimed at controlling the urban areas, the higher social capital reflects itself in a lower local tax evasion and in a more intensive responsibility in caring about public services. Also this issues deserve further analysis and research.

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