

# DO BEHAVIOURS IN CULTURAL MARKETS AFFECT ECONOMIC RESILIENCE? AN ANALYSIS OF THE ITALIAN REGIONS

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# PURPOSE AND RESULTS

**PURPOSE:** To investigate the relation between the **economic resilience** and **cultural behaviour**.

We resort to the evidence provided by the **20 Italian regions** at the time of the **Great recession**.

We consider specific cultural behaviours, which provide a **specific meaning of culture**.

**RESULT:** higher level of supplied and demanded quantity of cultural goods in a region associate with higher regional economic resilience as measured by the ability of **limiting employment drop**; the relation with the considered cultural behaviours is weaker in the case of economic resilience as measured by the ability of **limiting income drop**.

We propose possible explanations for this asymmetry.

# STRUCTURE OF PRESENTATION

- 1. Resilience and culture**
- 2. Different concepts and measures of economic resilience**
- 3. Variables and data**
- 4. The relation cultural variables- resilience**
- 5. Comments and conclusions**

# 1. RESILIENCE AND CULTURE

**Resilience** is a wide concept, which concerns the way in which different systems react to- and recover from- adverse shock.

The interest in economic resilience has been strengthened by the recent "Great recession"(2008).

Even within a single country, regions have reacted in different way to the adverse macroeconomic shock.

Understanding the reasons why regions show different degrees of resilience to adverse shock is important, not only from a theoretical point of view, but also for the policy implications that derive.

# 1. RESILIENCE AND CULTURE

***Different factors analysed in available studies, to explain why different regions show different resilience degrees:***

**the sectoral structure / specialization** (Giannakis & Brunneman, 2017);

**the level of GDP, employment, or wealth** (Petrakos & Psicharis, 2016);

**human capital; investment, especially in innovation** (Crescenzi & Rodriguez-Pose, 2011);

**trade openness; urbanization and accessibility to information and knowledge** (Dijkstra *et al.*, 2015; Capello *et al.*, 2015), ... .

***In this paper:***

**May cultural behaviour play a role in explaining differences across the regions?**

# 1. RESILIENCE AND CULTURE

The fact that “***cultural factors***”, along with economic, social and institutional factors, stand behind the different degrees of economic resilience across regions is out of doubt; – see Huggins & Thomson (2015)’s review.

**What meaning of cultural factors?**

**Anthropological and social meaning:**

- **social cohesion and reciprocal trust;**
- **importance attributed to education;**
- **respect of social norms, ....**

**Other – more specific – meanings of culture could be potentially relevant on economic resilience:**

# 1. RESILIENCE AND CULTURE

In this paper, we mean for culture **specific cultural behaviours** of both consumers and suppliers of cultural products.

Over the last years, increasing interest in the economic role:

- **cultural sector.**
- **“culture and creative industries”, ...**

All statistics agree on the fact that the cultural economy is playing an increasing role and the cultural sector was pretty resilient to the financial-economic crisis.

# 1. RESILIENCE AND CULTURE

Our present paper aims at analysing **the links** between **different indicators of resilience** and **indicators related to behaviours in specific cultural sectors**:

We consider the **IMPACT** reaction to the “Great recession” crisis.

We consider a set of variables included in the official cultural statistics provided by ISTAT (ISTAT, 2009).



## 2. DIFFERENT MEASURES OF ECONOMIC RESILIENCE

**(A) Indicators that simply consider the performance of a variable (or a list of variables) in an area, w.r.t. average data (e.g., Martin, 20\*\*; Lagravinese, 201\*).**

**→ Ratios (pertaining to different variables) can be rescaled and aggregated into a single index (e.g., Dabson *et al.*, 2012, Pendall *et al.*, 2010).**

**(B) Resilience indicators derived from data regression analysis, which can employ time series for different subjects or panel data (e.g., Fingleton *et al.*, 2012).**

**→ Specific coefficient associated to the crisis event (to capture the impact effect) and/or to the post-crisis years (to capture the recovery effect), with possible sophisticated specifications.**

### 3. VARIABLES AND DATA

#### RESILIENCE INDICATORS FOR THE ITALIAN REGIONS:

**We resort to available indices:**

Cellini & Torrissi (2014)    w.r.t. income,  
Di Caro (2015)                w.r.t. employment,  
(Cellini - Di Caro – Torrissi, 2017, offer a comparison)

(A) Descriptive statistics (the growth rate of region  $i$  as compared to the average national datum):

$$r_i = \frac{g_i}{|g_N|}$$

(B) The beta-coefficient associated to the dummy “crisis” in the regression procedure *à la* Fingleton et al. (2013)

$$g_i(t) = \alpha_i + \sum_{h=1}^H \beta_{i,(h)} D_h(t) + \sum_{k=1}^K \gamma_{i,(k)} S_k(t) + \varepsilon_i(t)$$

# 3. VARIABLES AND DATA

## DESCRIPTIVE STATISTICS INDICES

**Reaction of income (real p/c GDP) is evaluated in 2009**

**Reaction of employment (total empl.) is evaluated in 2009-11**

The Great recession:

- a minor impact on GDP in 2008 and the big adverse impact in 2009, followed by a slight and temporary recovery in 2010;
- employment increased in 2008, and started to decrease only in 2009, with severe contraction in 2010 and (in most regions) in 2011.

(Data source: ISTAT)

### 3. VARIABLES AND DATA

**Table 1 - The impact of the Great recession on income and employment**

I	II	III	IV	V	VI	VII
REGION	$g_i^{GDP}$	$r_i^{GDP} = \frac{g_i^{GDP}}{g_{ITA}^{GDP}}$	Ranking	$g_i^{EMP}$	$r_i^{EMP} = \frac{g_i^{EMP}}{g_{ITA}^{EMP}}$	Ranking
Piemonte	-0,078	-1,56	19	-0,003	-0,50	5
Valdaosta	-0,060	-1,20	16	-0,001	-0,17	3
Lombardia	-0,055	-1,10	15	-0,006	-1,00	11
Trentino-AA	-0,028	-0,56	1	0,006	+1,00	1
Veneto	-0,044	-0,88	9	-0,003	-0,50	5
Friuli-VG	-0,064	-1,28	17	-0,007	-1,17	12
Liguria	-0,048	-0,96	13	-0,003	-0,50	5
Emilia-R	-0,065	-1,30	18	-0,001	-0,17	3
Toscana	-0,039	-0,78	4	-0,004	-0,67	9
Umbria	-0,078	-1,56	20	-0,007	-1,17	12
Marche	-0,044	-0,88	9	-0,003	-0,50	5
Lazio	-0,036	-0,72	3	0,000	0,00	2
Abruzzo	-0,054	-1,08	14	-0,007	-1,17	12
Molise	-0,039	-0,78	4	-0,019	-3,17	18
Campania	-0,045	-0,90	12	-0,023	-3,83	20
Puglia	-0,044	-0,88	9	-0,013	-2,17	18
Basilicata	-0,040	-0,80	6	-0,012	-2,00	17
Calabria	-0,033	-0,66	2	-0,009	-1,50	15
Sicilia	-0,042	-0,84	7	-0,01	-1,67	16
Sardegna	-0,042	-0,84	7	-0,004	-0,67	9
Italy	-0,050			-0,006		

### 3. VARIABLES AND DATA

Income and employment seem to tell **different stories**

- . According to GDP
  - the most resilient: Trentino-AA, Calabria and Lazio
  - the less resilient: Umbria, Piemonte and Emilia-R
- . According to employment
  - the most resilient: Trentino-AA, Lazio and Emilia-R
  - the less resilient: Campania, Molise and Puglia

$$\text{Corr}(r^{GDP}, r^{EMP}) = -0.08 \text{ (ns)}$$

A debate is present in the literature on pros and cons of considering GDP vs. employment data, in the resilience evaluation.

Income and employment

VI	VII
$\frac{g_i^{EMP}}{g_{ITA}^{EMP}}$	Ranking
	5
	3
	11
	1
	5
	12
	5
	3
	9
	12
	5
	2
	12
	18
	20
	18

Basilicata	-0,040	-0,80	6	-0,012	-2.00	17
Calabria	-0,033	-0,66	2	-0,009	-1,50	15
Sicilia	-0,042	-0,84	7	-0,01	-1,67	16
Sardegna	-0,042	-0,84	7	-0,004	-0,67	9
Italy	-0,050			-0,006		

### 3. VARIABLES AND DATA

#### BETA COEFFICIENTS FROM REGRESSION ANALYSIS

Beta coefficients derived from single-equation estimation, following the specification suggested by Fingleton et al. (2013)

$$g_i(t) = \alpha_i + \sum_{h=1}^H \beta_{i,(h)} D_h(t) + \sum_{k=1}^K \gamma_{i,(k)} S_k(t) + \varepsilon_i(t)$$

Total sample: 1960-2013 for  $Y$  (crises: 1974, 1993, 2009)

Total sample: 1977-2015 for  $N$  (crises: 1993-94, 2009-11)

Beta coefficients refer to the impact reaction (not to recovery!) of Great recession (2009 for income; 2009,10,11 for employment)

### 3. VARIABLES AND DATA

**Table 1.bis – Conditional coefficients (Beta-coefficients) as indicators for regional resilience**

I	II	III	V	VII
REGION	$\beta_i^{GDP}$	Ranking according to $\beta_i^{GDP}$	$\beta_i^{EMP}$	Ranking according to $\beta_i^{EMP}$
Piemonte	-0.0736	18	-0.0096 <sup>#</sup>	4 (1)
Valdaosta	-0.0493	4	-0.0135 <sup>#</sup>	9 (1)
Lombardia	-0.0490	3	-0.0124	8 (12)
Trentino-AA	-0.0440	1	-0.0153	10 (13)
Veneto	-0.0681	15	-0.0202	13 (15)
Friuli-VG	-0.0769	20	-0.0089 <sup>#</sup>	3 (1)
Liguria	-0.0527	7	-0.0213 <sup>#</sup>	14 (1)
Emilia-R	-0.0690	16	-0.0098	5 (10)
Toscana	-0.0498	6	-0.0113	6 (11)
Umbria	-0.0767	19	-0.0070 <sup>#</sup>	1 (1)
Marche	-0.0639	14	-0.0195	12 (14)
Lazio	-0.0533	8	-0.0116 <sup>#</sup>	7 (1)
Abruzzo	-0.0601	12	-0.0194 <sup>#</sup>	11 (1)
Molise	-0.0706	17	-0.0261 <sup>#</sup>	17 (1)
Campania	-0.0536	9	-0.0222	16 (17)
Puglia	-0.0606	13	-0.0222	15 (16)
Basilicata	-0.0583	10	-0.0340	18 (18)
Calabria	-0.0495	5	-0.0081	2 (9)
Sicilia	-0.0589	11	-0.0368	19 (19)
Sardegna	-0.0451	2	-0.0414	20 (20)

### 3. VARIABLES AND DATA

Comparison between indicators based on simple statistics and indicators coming from regression analysis

$$\text{Corr}(r^{GDP}, \text{Beta}^{GDP}) = + 0.64^{**}$$

$$\text{Corr}(r^{EMP}, \text{Beta}^{EMP}) = + 0.34$$

**(Beta-coefficients)**

				VII
				Ranking according to $\beta_i^{EMP}$
				4 (1)
				9 (1)
				8 (11)
Lombardia	-0.0490	5	-0.0124	10 (12)
Trentino-AA	-0.0440	1	-0.0153	13 (14)
Veneto	-0.0681	15	-0.0202	3 (1)
Friuli-VG	-0.0769	20	-0.0089 <sup>#</sup>	14 (15)
Liguria	-0.0527	7	-0.0213 <sup>#</sup>	5 (9)
Emilia-R	-0.0690	16	-0.0098	6 (10)
Toscana	-0.0498	6	-0.0113	1 (1)
Umbria	-0.0767	19	-0.0070 <sup>#</sup>	12 (13)
Marche	-0.0639	14	-0.0195	7 (1)
Lazio	-0.0533	8	-0.0116 <sup>#</sup>	11 (1)
Abruzzo	-0.0601	12	-0.0194 <sup>#</sup>	17 (1)
Molise	-0.0706	17	-0.0261 <sup>#</sup>	16 (17)
Campania	-0.0536	9	-0.0222	15 (16)
Puglia	-0.0606	13	-0.0222	18 (18)
Basilicata	-0.0583	10	-0.0340	2 (8)
Calabria	-0.0495	5	-0.0081	19 (19)
Sicilia	-0.0589	11	-0.0368	20 (20)
Sardegna	-0.0451	2	-0.0414	

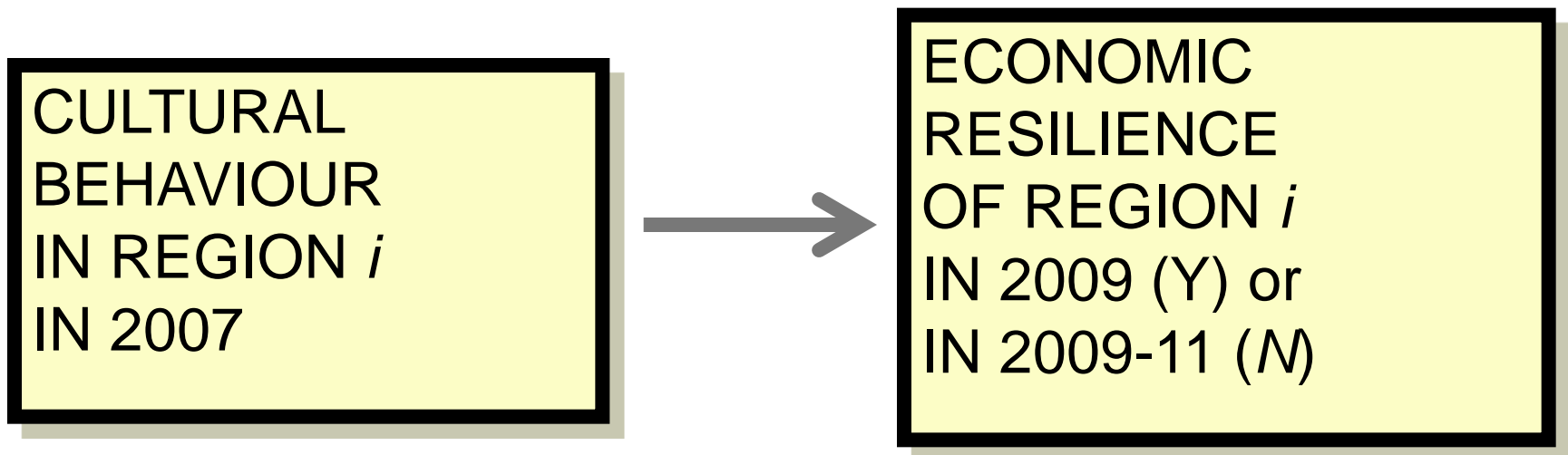


### 3. VARIABLES AND DATA

#### CULTURAL VARIABLES

We consider the **cross-section** sample made by the 20 Italian regions, as observed at the time of Great recession.

All the variables concerning cultural behaviours are from ISTAT (2009) which refers to the year 2007.



The list of cultural variables under consideration is:

# 3. VARIABLES AND DATA

## CULTURAL VARIABLES - List

	Description	Norm	D vs S
1. MUSEUMS	Number of State museums per 1,000 squared kilometer	Surf	S
2. MUSATTRACT	Number of visitors to State museums and historic buildings (free and charged tickets) per sq. km.	Surf	S
3. MUSATTEND	Percentage of residents (aged 6+) who visited at least one museum in the previous 12 months	Pop	D
4. UNESCOS	Number of UNESCO World Heritage List sites in the region per 1,000 sq. km.	Surf	S
5. LIBR	number of libraries (State and private) in the region per 100,000 residents	Pop	S
6. LIBRBORR	number of books borrowed to private citizens from State libraries per 100,000 residents	Pop	D
7. EDITORS	number of active editors in the region per 100,000 residents	Pop	S
8. READBOOK	Percentage of residents (aged 6+) who read at least one book in the previous 12 months	Pop	D
9. THEATPERF	number of theatrical and musical performances given in the year, per 100,000 residents	Pop	S
10. THEATERATT	number of tickets sold for theatrical and musical shows per 100 residents	Pop	D
11. CINEMASHOW	number of movie showings in the region per 100 residents	Pop	S
12. CINEMAATT	Percentage of residents (aged 6+) who watched at least one movie in cinema in the previous 12 months	Pop	D
13. RADIOST	Number of private radio stations per 100,000 residents	Pop	S
14. RADIOLIST	Percentage of residents (aged 3+) who listened to radio in the previous 12 months	Pop	D
15. TVST	Number of private TV stations in the region per 100,000 residents	Pop	S
16. TVWATCHER	Percentage of residents (aged 3+) who watched TV in the previous 12 month	Pop	D

# 3. VARIABLES AND DATA

## CULTURAL VARIABLES - List

	Description	Norm	D vs S
1. MUSEUMS	Number of State museums per 1,000 squared kilometer	Surf	S
2. MUSATTRACT	Number of visitors to State museums and historic buildings (free and charged tickets) per sq. km.	Surf	S
3. MUSATTEND	Percentage of residents (aged 6+) who visited at least one museum in the previous 12 months	Pop	D

All variables are scaled by the size of region, as measured by: population **or** territorial size, according to the fact that the variable is population-serving **or** space-serving.

12. CINEMAATT	Percentage of residents (aged 6+) who watched at least one movie in cinema in the previous 12 months	Pop	D
13. RADIOST	Number of private radio stations per 100,000 residents	Pop	S
14. RADIOLIST	Percentage of residents (aged 3+) who listened to radio in the previous 12 months	Pop	D
15. TVST	Number of private TV stations in the region per 100,000 residents	Pop	S
16. TVWATCHER	Percentage of residents (aged 3+) who watched TV in the previous 12 month	Pop	D

# 3. VARIABLES AND DATA

## CULTURAL VARIABLES - List

	Description	Norm	D vs S
1. MUSEUMS	Number of State museums per 1,000 squared kilometers	Surf	S
2. MUSATTRACT	Number of visitors to State museums and historic buildings (free and charged tickets) per sq. km	Surf	S
3. MUSATTEND	Percentage of residents (aged 6+) who visited at least one museum in the previous 12 months	Pop	D
	in the	Surf	S
	gion per	Pop	S
	om State	Pop	D
	00 residents	Pop	S
	least one	Pop	D
	given in the	Pop	S
	shows per	Pop	D
11. CINEMASHOW	number of movie showings in the region per 100 residents	Pop	S
12. CINEMAATT	Percentage of residents (aged 6+) who watched at least one movie in cinema in the previous 12 months	Pop	D
13. RADIOST	Number of private radio stations per 100,000 residents	Pop	S
14. RADIOLIST	Percentage of residents (aged 3+) who listened to radio in the previous 12 months	Pop	D
15. TVST	Number of private TV stations in the region per 100,000 residents	Pop	S
16. TVWATCHER	Percentage of residents (aged 3+) who watched TV in the previous 12 month	Pop	D

All variables pertain to **DEMAND *or* SUPPLY** of cultural services (however, such a distinction is immaterial to our point)

# 3. VARIABLES AND DATA

## CULTURAL VARIABLES: Descriptive statistics

	Mean	Median	Std dev	Min	Max
1. MUSEUMS	0.6747	0.6136	0.5882	0.0000	2.3213
2. MUSATTRACT	133.93	38.660	195.55	0.0300	658.64
3. MUSATTEND	27.445	28.350	8.0772	14.700	43.000
4. UNESCOS	0.1433	0.1182	0.1174	0.0000	0.3693
5. LIBR	25.052	23.041	9.1292	14.186	44.924
6. LIBRBORR	431.33	332.00	457.67	0.0000	1590.3
7. EDITORS	2.8406	2.8944	1.4352	0.9458	5.7223
8. READBOOK	42.650	45.000	9.2075	28.900	55.000
9. THEATPERF	364.15	382.50	145.82	148.00	663.00
10. THEATERATT	8.4170	8.6100	4.6633	1.4800	17.480
11. CINEMASHOW	2.2041	2.1521	0.8395	0.5868	3.8033
12. CINEMAATT	47.030	47.800	4.3647	37.400	54.000
13. RADIOST	3.6443	3.4150	1.7204	0.8247	7.9629
14. RADIOLIST	63.065	62.450	4.6451	54.500	73.600
15. TVST	1.2228	1.0421	0.7505	0.3038	3.2089
16. TVWATCHER	93.705	94.050	1.2194	90.200	95.700
1.bis. MUSEUMS_No0	0.7937	0.7126		0.1576	2.3213
6.bis. LIBRBORR_No0	616.20	517.35		41.938	1590.3

# 3. VARIABLES AND DATA

## CULTURAL VARIABLES

A great deal of heterogeneity across regions does exist.

For instance, the propensity to attend museums, as measured by the percentage of resident population (aged 6+) declaring to have visited at least one museum over the previous year, ranges between 14.7 (in Calabria) to 43.0 (in Trentino-AA);

the propensity to attend theatre performances, as captured by the number of tickets sold for 100 residents, ranges between 1.40 (in Molise) and 17.14 (in Lazio).

On the supply side, the number of given theatre performances (scaled by resident population in 100,000 residents) ranges from 148 (in Calabria) to 662 (in Valdaosta).

# 3. VARIABLES AND DATA

## CULTURAL VARIABLES

Data have to be read and interpreted with caution, e.g. for variables with minimum value equal to zero:

- (i) there are regions with zero State museums (Valdaosta, Trentino-AA, and Sicily), because public museums are run by the respective Regional administration;
- (ii) there are regions where State libraries registered zero books borrowed to private (of course in these regions other public libraries are available for this service);

*in these two cases, we carry out analysis also omitting the regions with the zero minimum values (the label “No\_0” is attached in these circumstances).*

the zero minimum value in **UNESCOS variable** is genuine

## 4. THE RELATION CULTURAL VARIABLES - RESILIENCE

**Simple correlation:**

**cultural variables and resilience indicator  $r^{GDP}$ ,  $r^{EMP}$ .**

We consider the **cross-section** sample made by the 20 Italian regions, as observed at the time of Great recession.



# 4. THE RELATION CULTURAL VARIABLES - RESILIENCE

**Simple correlation:**

**cultural variables and resilience indicator  $r^{GDP}$ ,  $r^{EMP}$ .**

I. - Variable	II. - Corr with $r^{GDP}$	III. - Corr with $r^{EMP}$
MUSEUMS	0.4776**	-0.2341
MUSATTRACT	0.0279	-0.1051
MUSATTEND	-0.3051	0.7949***
UNESCOS	0.0624	-0.0693
LIBR	-0.1104	0.2705
LIBRBORR	-0.2111	0.2581
EDITORS	-0.3015	0.6921***
READBOOK	-0.3399	0.7482***
THEATPERF	-0.3722	0.7186***
THEATERATT	-0.1474	0.5274***
CINEMASHOW	-0.4453**	0.5053**
CINEMAATT	-0.4216	-0.0526
RADIOST	0.0611	-0.0493
RADIOLIST	-0.0279	0.4624**
TVST	0.0786	-0.4023
TVWATCHER	-0.2034	-0.4305
POP	-0.0261	-0.0818
SURF	0.1347	-0.1692
MUSEUMS_(No0)	0.2623	0.1451
LIBRBORR_(No0)	-0.4274	0.4514

# 4. THE RELATION CULTURAL VARIABLES - RESILIENCE

**Simple correlation:**

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MUSEUMS	0.4776**	-0.2341
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THEATPE		
THEATER		
CINEMAS		
CINEMAA		
RADIOST		
RADIOLIS		
TVST		
TVWATCHER	-0.2034	-0.4305
POP	-0.0261	-0.0818
SURF	0.1347	-0.1692
MUSEUMS_(No0)	0.2623	0.1451
LIBRBORR_(No0)	-0.4274	0.4514

No correlation of resilience indicators  
with  
regional size



# 4. THE RELATION CULTURAL VARIABLES - RESILIENCE

Significant, positive correlation with cultural variables is much more frequent for the resilience indicator referred to employment rather than the resilience indicator referred to income

**resilience indicator  $r^{GDP}$ ,  $r^{EMP}$ .**

I. - Corr with $r^{GDP}$	III. - Corr with $r^{EMP}$
.4776**	-0.2341
.0279	-0.1051
.3051	0.7949***
.0624	-0.0693
.1104	0.2705
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.0261	-0.0818
.1347	-0.1692
.02623	0.1451
LIBRBORR_(No0)	-0.4274
	0.4514

# 4. THE RELATION CULTURAL VARIABLES - RESILIENCE

**Simple correlation:**

**cultural variables and resilience indicator  $r^{GDP}$ ,  $r^{EMP}$ .**

I. - Variable	II. - Corr with $r^{GDP}$	III. - Corr with $r^{EMP}$
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i.e.,

the cultural behaviours have been more significant in limiting the negative employment effect of the crisis, rather than the negative effect on income

i.e. (again),

larger demand and supply of cultural activities have helped limiting job losses, more than they have helped limiting income drop.

MUSEUMS_(No0)	0.2623	0.1451
LIBRBORR_(No0)	-0.4274	0.4514

# 4. THE RELATION CULTURAL VARIABLES - RES

**Simple correlation:**

**cultural variables and resilience indicator  $r$**


I. - Variable	II. - Corr with $r^{GDP}$	III. - Corr with $r^{EMP}$
MUSEUMS	0.4776**	-0.2341
MUSATTRACT	0.0279	-0.1051
MUSATTEND	-0.3051	0.7949***
UNESCOS	0.0624	-0.0693
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MUSEUMS_(No0)	0.2623	0.1451
LIBRBORR_(No0)	-0.4274	0.4514

Correlation is very strong for cultural variables with a high degree of cross-section variability: the supply of theatre performances, and the propensity to attend museums or theatre.

# 4. THE RELATION CULTURAL VARIABLES - RES

**Simple correlation:**

**cultural variables and resilience indicator  $r$**



I. - Variable	II. - Corr with $r^{GDP}$	III. - Corr with $r^{EMP}$
MUSEUMS	0.4776**	-0.2341
MUSATTRACT	0.0279	-0.1051
MUSATTEND	-0.3051	0.7949***
UNESCOS	0.0624	-0.0693
LIBR	-0.1104	0.2705
LIBRBORR	-0.2111	0.2581
EDITORS	-0.3015	0.6921***
READBOOK	-0.3399	0.7482***
THEATPERF	-0.3722	0.7186***
THEATERATT	-0.1474	0.5274***
CINEMASHOW	-0.4453**	0.5053**
CINEMAATT	-0.4216	-0.0526
RADIOST	0.0611	-0.0493
RADIOLIST	-0.0279	0.4624**
TVST	0.0786	-0.4023
TVWATCHER	-0.2034	-0.4305
POP	-0.0261	-0.0818
SURF	0.1347	-0.1692
MUSEUMS_(No0)	0.2623	0.1451
LIBRBORR_(No0)	-0.4274	0.4514

Active cultural behaviours of residents are more important than “endowment” for limiting the negative effect on employment; endowment variables are more important for income resilience

(see, e.g.,  
MUSEUMS vs  
MUSATTEND)



## 4. THE RELATION CULTURAL VARIABLES - RESILIENCE

### Discussion / 1. Provocative question

**Can cultural behaviours like the propensity to visit museums, to read books and to attend theatre performances be proxied by ONE SINGLE variable?**

**(... Namely the human capital level - ... as measured, e.g., by the share of population with a given level of education).**

**To this end, Considered the percentage of residents (aged 15+) who are graduated (ISTAT, referred to 2007)**

**There is a positive and significant correlation with many cultural variables**

**but NO significant correlation with  $r^{GDP}$  or  $r^{EMP}$**

***Cultural behavior rather than formal education seems to be effective in shaping employment resilience!***



## 4. THE RELATION CULTURAL VARIABLES - RESILIENCE

### Discussion / 2.

Several cultural variables under scrutiny can be interpreted as a sign of **intellectual liveliness**, that can contribute to the vitality and vibrancy of the regional cultural life.

These individual behaviours can also express some **hidden artistic and creative interests** in the attendance.

The concept of “**active consumption**” could help to interpret the empirical results (Caserta & Cuccia, 2001).



# 4. THE RELATION CULTURAL VARIABLES - RESILIENCE

## **Discussion / 2. The “active consumption”**

A macro-economic adverse shock negatively affects local economies ... but,

where these “hidden” artistic and creative interests are cultivated, new energies can be resealed and new ideas can arise, able to increase the degree of resilience.

The opportunity-cost of the time devoted to creative activities decreases in times of economic crises, due to higher unemployment and possibly lower wage rates.

The cultural and creative sectors are characterized by a higher and increasing percentage of self-employers on the total employment and a smaller average size of firms.

These facts are consistent with a higher resilience in employment than in income.

# 4. THE RELATION CULTURAL VARIABLES - RESILIENCE

## **Multiple determinants**

Nobody would expect that, say, museum or theatre attendance *per se* are able to deliver resilience outcome:

The cultural variables under scrutiny have to be considered as a set of indicators that capture the cultural vitality and vibrancy of a region, if jointly considered.

If jointly considered, the cultural variables under scrutiny are significant in explaining the employment resilience

# 4. THE RELATION CULTURAL VARIABLES - RESILIENCE

## Multiple regression (for $r^{EMP}$ )

	I All observations	II _(No0) observations
<i>Supply-related variable inserted:</i> MUSEUMS, MUSATTRACT, UNESCOS, LIBR, EDITORS, THEATPERF, CINEMASHOW, RADIOST, TVST	$R^2=0.79$ $R^2_{bar}=0.59$ $F_{7,12}=4.09$ $p=0.019^{**}$	$R^2=0.94$ $R^2_{bar}=0.80$ $F_{9,4}=6.80$ $p=0.040^{**}$
<i>Demand-related – variables inserted:</i> MUSATTEND, LIBRBORR, READBOOK, THEATERATT, CINEMAATT, RADIOLIST, TVWATCHER	$R^2=0.69$ $R^2_{bar}=0.51$ $F_{7,12}=3.81$ $p=0.021^{**}$	$R^2=0.75$ $R^2_{bar}=0.46$ $F_{7,6}=2.62$ $p=0.130$

## 4. THE RELATION CULTURAL VARIABLES - RESILIENCE

### **Analysis on the BETA indicators of resilience**

The indicators deriving from regression analysis can be studied to detect the possible influence of cultural factors, following the same procedure already used for the  $r$  indicators.

Similar substantial outcomes emerge:

The simple correlations between the beta coefficients and the variables related with cultural behavior are generally not significant in the case of beta coefficients referred to income, while they are positive and significant if beta coefficients are referred to employment.

## 4. THE RELATION CULTURAL VARIABLES - RESILIENCE

### **Analysis on BETA indicators of resilience**

In particular, a positive and significant (5%) correlation emerges between  $B^{EMP}$  on the one side, and EDITOR and THEATERATT on the other side; a positive and significant corr. (10% level) also exists with MUSATT, READBOOK, THEATPERF, CINEMASHOW and CINEMAATT.

## 5. COMMENTS AND CONCLUSIONS

The "Great recession" has been an aggregate shock hitting the entire world economy.

As to Italy, the drop in the GDP has been particularly severe and long-lasting:

- real p/c GDP has dropped in Italy by about 8% between 2008 and 2012;
- most part of the drop concentrating in 2009, when real p/c GDP = -5.0%.

Over the same years, employment decreased by 2.4%.

However, the shock impact and the economic performance in the 20 Italian regions have not been the same: ***economic resilience, in Italy as well as in any other countries, differs across regions.***

## 5. COMMENTS AND CONCLUSIONS

What makes **Italy** an **interesting case** to analyze is the fact that the **differences** across regions are **huge** and **persistent**, both from an historic perspective, and in the recent case of the resilience to the Great recession.

Big differences across regions mean **large variability of economic factors**, and hence **good dataset to investigate**.

Specifically, in the present analysis we have analyzed the relation between ***regional economic resilience*** and a list of variables related to ***cultural behaviors***.

A positive cross-section association exists between employment resilience ability of regions and some behaviors that concern both the demand and the supply side of cultural markets.

## 5. COMMENTS AND CONCLUSIONS

At a first glance, it could be surprising that the cultural sectors show this capacity to explain the degree of resilience of the Italian regions, if we consider that:

- the cultural sectors are usually subsidized by the Central and the local governments

and

- in the years of crisis they have paid a high cost in terms of public funds cut:

the share of public expenditure devoted to “culture and leisure activities” passed from 2.2% of the expenditure of the public sector in 2004 to less than 1% in 2012.



## 5. COMMENTS AND CONCLUSIONS

***Why cultural active behaviors are associated with employment resilience, more than with income resilience?***

**Peculiar characteristics** of the cultural sector:

- Talented persons could find easier to come in, at least as self-employed (especially in period of economic recession when the opportunity costs of alternative works are lower).
- Where consumption behavior are more intense, it is easier to move from the demand to the supply side of cultural markets.
- Active cultural consumers are also a sign of open-minded attitude, and easiness to react to crisis.
- The economic impact on GDP of creative and cultural job is pretty modest.

## 5. COMMENTS AND CONCLUSIONS

The peculiar structure of the cultural industries (**self-employers, small and micro- enterprises**, and a **high rate of turnover** of cultural enterprises) has:

- **positive effect**: it can justify the resilience ability of this sector and consequently the larger employment resilience of the regions where cultural behaviors are more relevant.
- **[negative effect**: the scarce impact on resilience in income of the cultural behaviors but it cannot contribute to long-run growth trajectories of aggregate income (Pratt, 2017).]

## 5. COMMENTS AND CONCLUSIONS

**New forms of public intervention to enhance economic resilience are necessary** (Bristow & Healy, 2015).

In the cultural field, policy measures have to be less based on financial subsidies and more on **institutional support and coordination of cultural enterprises**.

**Citizens' cultural participation and education have to be cultivated** and also supported as tools able, at one time, to transmit the knowledge to favor the resilience as evolutionary ability to react to adverse shocks.

**Thanks,**

***Tiziana***

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