

# Inherited Culture e sviluppo economico in Italia

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CONVEGNO SCIENTIFICO  
ELEMENTI STORICO ECONOMICI DELLA STATISTICA  
NELLA SOCIETÀ ITALIANA NEL LUNGO PERIODO

# Introduction

- The cultural traits are often invoked as the determinants of different economic outcomes (Bisin and Verdier, 2001; Guiso et al., 2006; Tabellini, 2010; Spolore and Warczag, 2013.)
- Cultural traits are values and beliefs which in turn are the results of events and institutional heritage from a very distant past (Bisin and Verdier 2001; Doepke and Zilibotti, 2008 Voigthlander and Voth, 2012).
- Italy is an ideal ground to test the effects of inherited cultural traits on within country income divergence.

# Motivation- 1

- There is an open question about the origin in a distant past of and the persistence of cultural traits in a broad sense, whose effects may still influence the level of development after 150 of unification.
- Moreover, there is lively debate about through which channels, if any, the cultural traits shape the economic behaviour (Ackcomak and ter Weel 2009; Spolaore Warciag 2013)

# Motivation- 2

- We explore whether some cultural traits inherited from the past (values and beliefs that include, although not limited to, cooperative behaviour, trust, inclusiveness and formal education) influence the quality and efficiency of formal institutions today in Italy which in turn contribute to explain the different levels of development across areas.
- We look at the efficiency of judicial system as sign of different institutional efficiency across Italian provinces.

# Motivation- 3

Yet, we propose the following transmission channel:

- Inherited culture  
efficiency of current  
institutions income per  
capita

Previous studies:

- Inherited culture current culture  
income per capita (Zak and Knack 2001;  
Francois and Zabochnik, 2005; Tabellini  
2010, Voigthlander and Voth, 2012;  
Borowiecki, 2015)
- Past formal institutions current culture  
income per capita (Ackomak and ter Weel  
2009; Tabellini 2010, Guiso et al., 2010)
- Past formal institutions current formal  
institutions income per capita (Acemoglu  
et al. 2005)

## Legal institutions-1

It is difficult to directly observe the quality of institutions within a country. Available datasets cover cross country differences (PRS or PolityIV to mention a few)

- We build an indirect measure of quality of institutions based on the efficiency of judicial courts to capture differences in institutional quality of the provinces of Italy: length of the judicial trials is a possible measure of quality of formal institutions as the European commission for the efficiency of justice (Cepej) suggests
  - Evidence: civil trials in different courts take different days to be concluded

## Legal institutions- 2

What could determine differences in formal institutions within the same legal system and legislation?

- Income per capita level
- Personnel in the courts (judges)
- Degree of infighting and cultural traits. Areas with higher quality of cultural traits have lower probability to go to the court.

## Legal institutions- 3

- increasing number of trials affect the workload of courts, but also because the actors involved, judges, lawyers, claimants, and external consultants often use legal formalisms and circumvent best practices to prolong trials for personal interests or simply laxity.

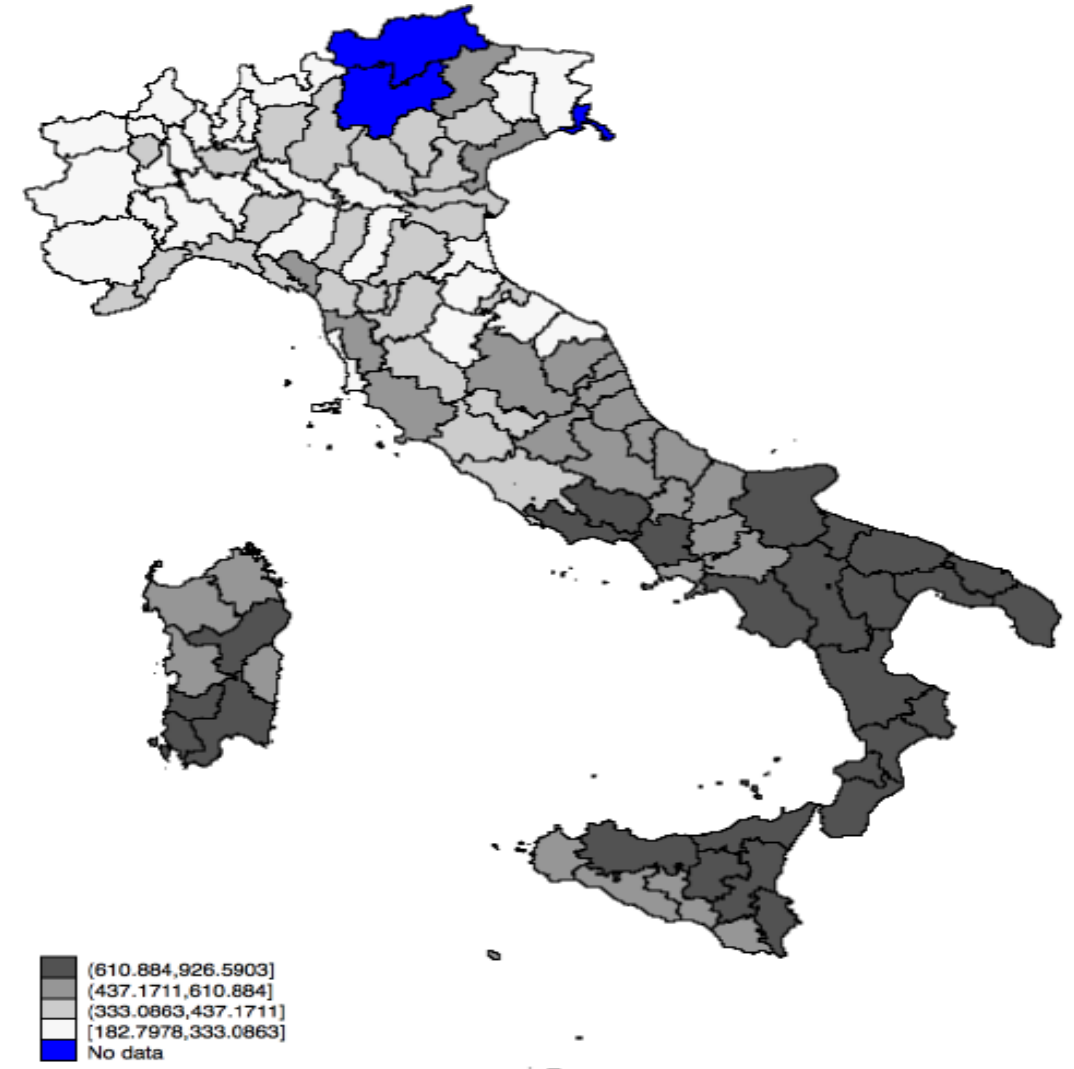




Table : Ols regressions

- A reduction in the length of trials of one standard deviation (177 days) is associated with an increase in the value added per capita by barely 20% in column 1; controlling for several other regressors the effect of a reduction in one standard deviation decrease to 4.72%.

- the quality of justice is likely to be correlated with the error term , and the conditional association may be affected by serious problems of endogeneity.

	Log of value added per capita			
	(1)	(2)	(3)	(4)
QJ	-0.00115*** (8.53e-05)	-0.000746*** (6.87e-05)	-0.000266*** (8.00e-05)	-0.000487*** (9.79e-05)
Urbanization 1871		0.0903* (0.0528)	0.128** (0.0524)	0.0829* (0.0494)
Y. of schooling		0.194*** (0.0360)	0.168*** (0.0345)	0.139*** (0.0366)
Org. Crime		-0.208*** (0.0322)	-0.141*** (0.0281)	-0.137*** (0.0307)
Department dummy variables	N	N	Y	N
South dummy variable	N	N	N	Y
Constant	3.551*** (0.0394)	1.513*** (0.359)	1.636*** (0.337)	1.972*** (0.360)
Observations	102	102	102	102
R-squared	0.623	0.812	0.896	0.836

Robust standard errors in parentheses. \*\*\* p<0.01, \*\* p<0.05, \* p<0.1

## Cultural heritage

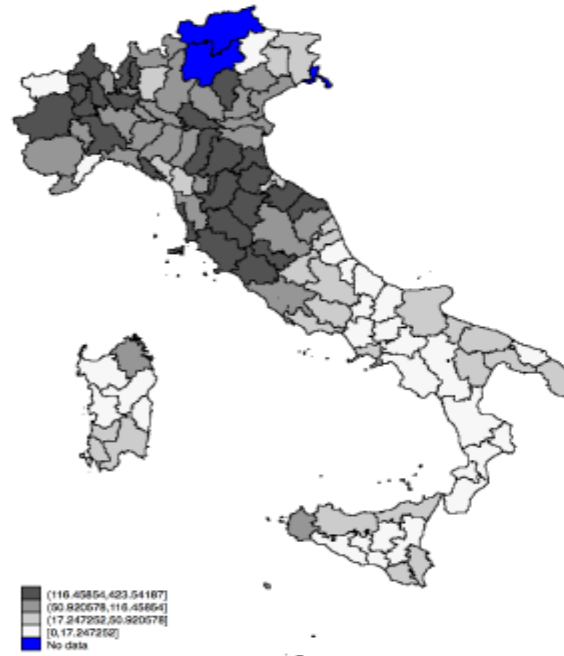
We have found evidence of the inherited cultural traits in the civic tradition and cooperation of past times. The *Società di Mutuo Soccorso* are a good proxy of trust, inclusiveness and cooperation in the history of Italy.

The *Società di Mutuo Soccorso* were the first attempt to provide assistance among citizens on a voluntary basis

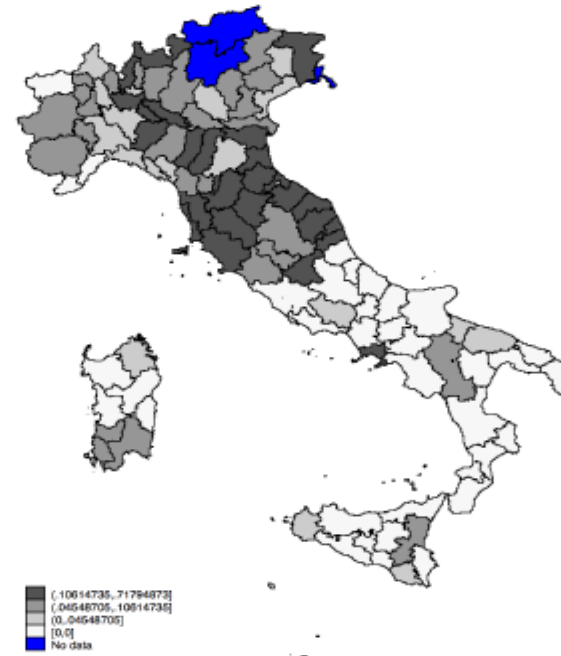
- They spread in the early years of Unification. The first complete census was made in 1873 by the MAIC
- We assume the number of *Società di Mutuo Soccorso*, the number of members relative to population and the gender composition as indirect measures of values of a community.

Finally, we complement the concept of cultural traits with the illiteracy rate to take into account the beliefs of a community and to discount for future intergenerational transmission of those beliefs.

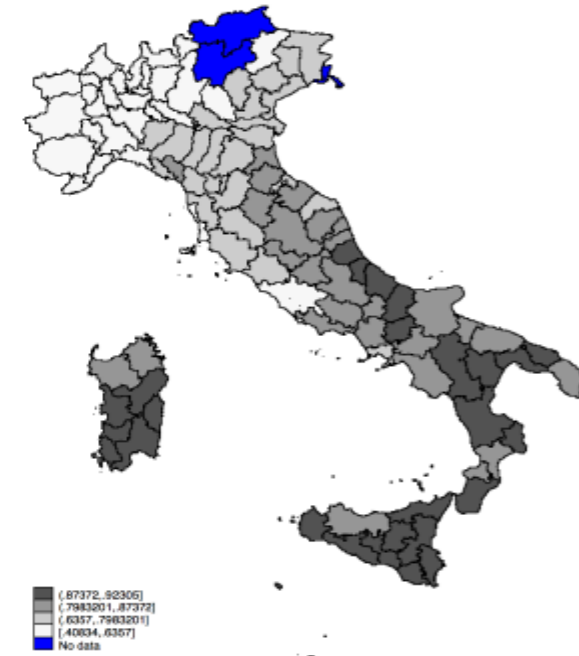
Components of past cultural traits in the early 1870s: the *Società di Mutuo Soccorso* and illiteracy rate



(a) *Members of the Società each 10000 inhab.*

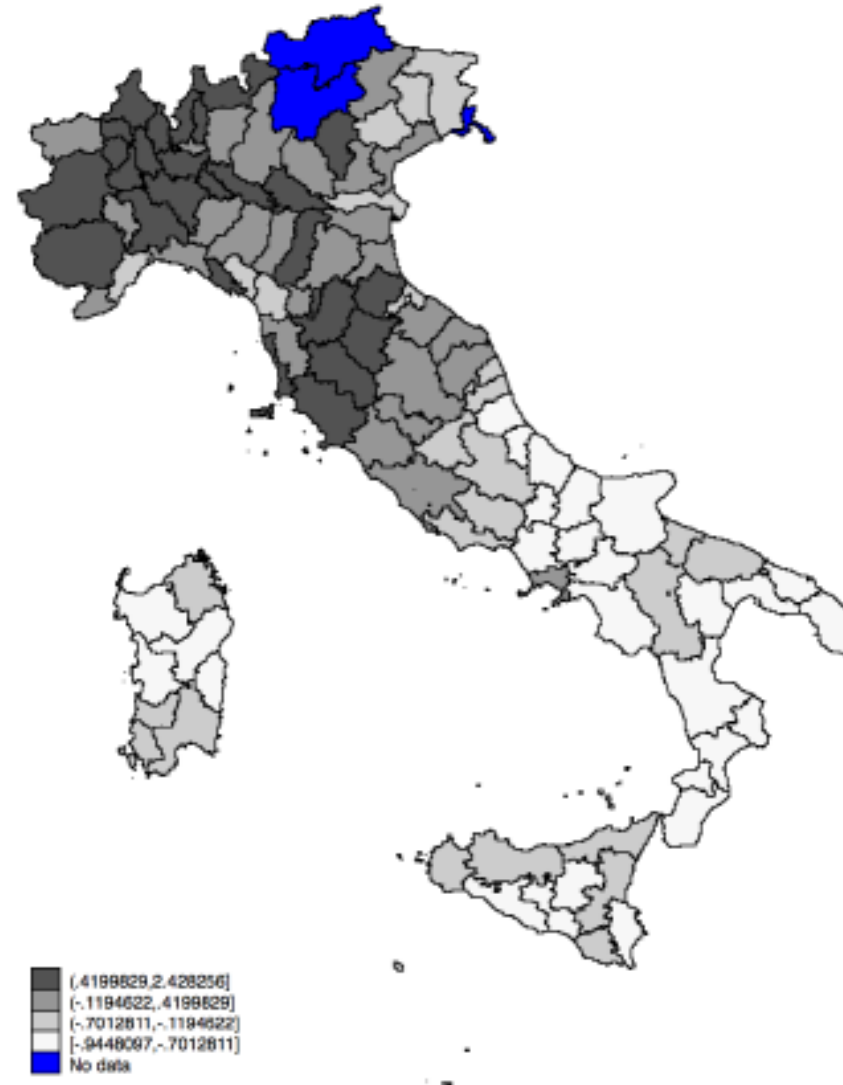


(b) *Female to male ratio in the Società.*



(c) *Illiteracy rate in 1871.*

Putting together the previous elements and using factor analysis we obtain a composite measure of cultural traits in the past. The pattern indicate that moving from North to South cultural traits worsen.



## Empirical Analysis

Cultural traits in the past shape the current quality of judicial system which in turn influence income per capita today. The empirical set up is a standard IV regression approach

- $GVAPC_i = \alpha + \delta * QJ_i + \beta * y_{0i} + \gamma * S_i + \delta * \mathbf{D}_i + \epsilon_i$
- $QJ_i = a + d * IC_i + g * \mathbf{X}_i + \eta_i$

Table : IV regressions: Institutions and inherited culture

Panel A	Log of value added per capita			
	(1)	(2)	(3)	(4)
QJ	-0.00144*** (0.000132)	-0.00104*** (0.000131)	-0.00112*** (0.000381)	-0.00106*** (0.000291)
Urbanization 1871		0.0972 (0.0592)	0.116* (0.0694)	0.0977 (0.0610)
Y. of schooling _bc		0.161*** (0.0349)	0.170*** (0.0408)	0.164*** (0.0413)
Org. Crime		-0.155*** (0.0440)	-0.162*** (0.0487)	-0.159*** (0.0479)
Department dummy variables	N	N	Y	N
South dummy variable	N	N	N	Y
Constant	3.688*** (0.0605)	1.951*** (0.359)	1.906*** (0.434)	1.929*** (0.374)
Observations	102	102	102	102
R-squared	0.582	0.784	0.796	0.780
Panel B: first stage	Length of trials			
	(1)	(2)	(3)	(4)
IC	-163.2*** (19.72)	-137.7*** (22.01)	-63.05*** (19.06)	-76.53*** (19.70)
Department dummy variables	N	N	Y	N
South dummy variable	N	N	N	Y
Regressors in Panel A	Y	Y	Y	Y
Observations	102	102	102	102

Robust standard errors in parentheses, \*\*\* p&lt;0.01, \*\* p&lt;0.05, \* p&lt;0.1

## Inherited culture vs current civic capital-1

- The cultural traits from the past result in an invalid instrument if they affect income per capita through other channels and through accumulation of civic capital in particular.
- The omission of current measures of civic capital is a serious issue.
- Under this circumstance, the effects quality of justice on the value added per capita should evaporate or, at least, substantially shrink.

**Table : IV regressions: Institutions and inherited culture and contemporary culture**

<b>Panel A</b>		<b>Log of value added per capita</b>				
	(1)	(2)	(3)	(4)	(5)	
QJ	-0.00108*** (0.000217)	-0.000967*** (0.000178)	-0.00116** (0.000490)	-0.00101*** (0.000331)	-0.00108** (0.000445)	
Current civic capital	0.0250** (0.00992)	0.00863 (0.00948)	-0.00383 (0.0120)	0.00851 (0.00989)	-0.00242 (0.0112)	
Urbanization 1871		0.0782 (0.0654)	0.122 (0.0768)	0.0795 (0.0689)	0.107 (0.0732)	
Y. of schooling		0.154*** (0.0351)	0.174*** (0.0430)	0.159*** (0.0441)	0.175*** (0.0404)	
Org. Crime		-0.124*** (0.0456)	-0.175*** (0.0663)	-0.131** (0.0610)	-0.168*** (0.0619)	
Openess					0.0487* (0.0290)	
Department dummy variables	N	N	Y	N	Y	
South dummy variable	N	N	N	Y	N	
Constant	3.524*** (0.103)	1.992*** (0.351)	1.899*** (0.433)	1.951*** (0.381)	1.829*** (0.394)	
Observations	102	102	102	102	101	
<b>Panel B: first stage</b>		<b>Length of trials</b>				
	(1)	(2)	(3)	(4)	(5)	
IC	-103.4*** (18.98)	-105.6*** (19.33)	-51.77*** (18.63)	-67.47*** (17.41)	-53.95*** (18.66)	
Current civic capital	-25.65*** (4.493)	-28.42*** (5.635)	-15.16** (6.225)	-19.28*** (5.368)	-15.73** (6.330)	
Department dummy variables	N	N	Y	N	Y	
South dummy variable	N	N	N	Y	N	
Regressors in Panel A	Y	Y	Y	Y	Y	
Observations	102	102	102	102	101	

Robust standard errors in parentheses, \*\*\* p<0.01, \*\* p<0.05, \* p<0.1



## Inherited culture vs current civic capital-2

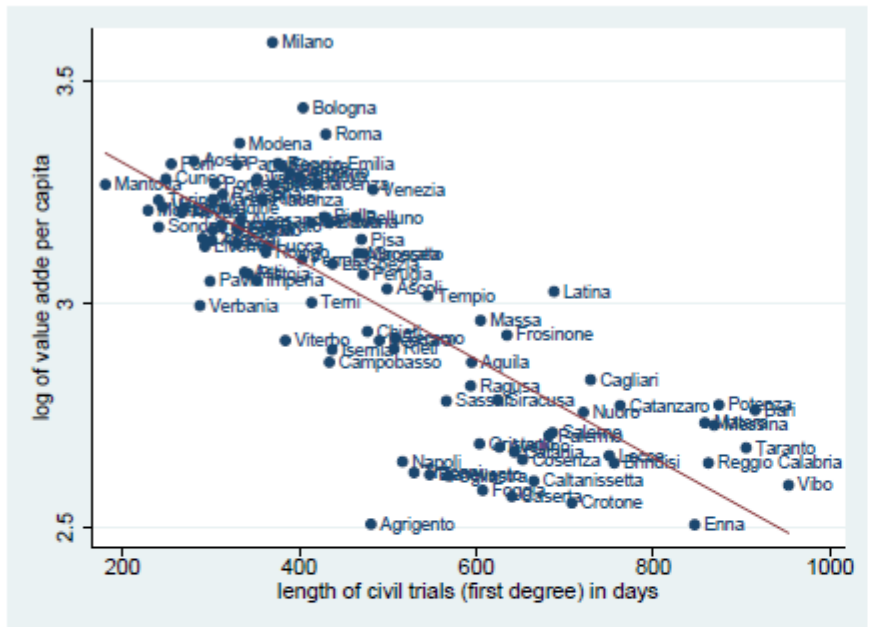
- The inclusion of current civic capital does not change the results neither in the IV nor in the first stage regression model.
- Inherited cultural traits do not vanish in the first stage regression
- Both inherited culture and current civic capital may affect the today quality of justice. This finding figure out two sources of civic capital: one coming from the past and another accumulated in recent years

## Conclusions

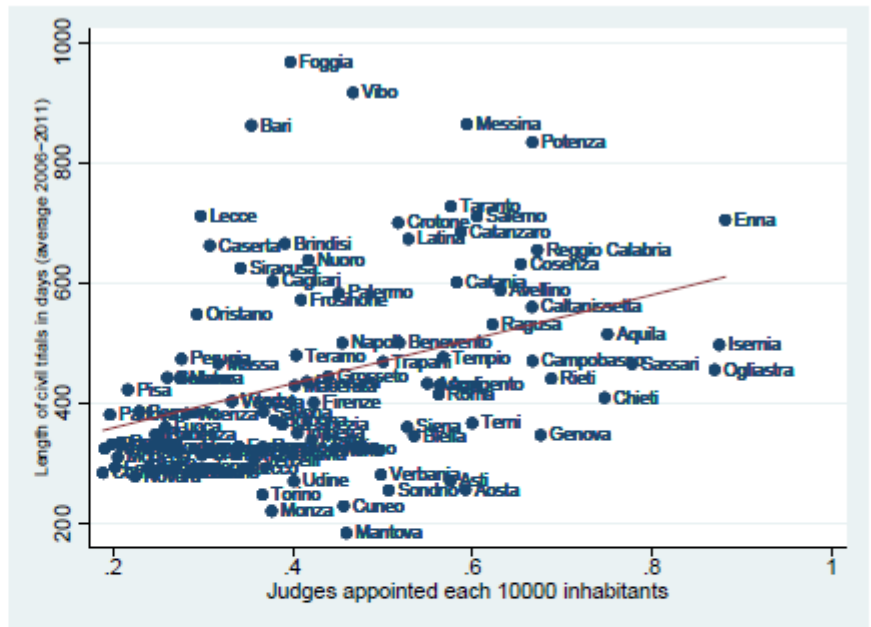
- Cultural traits have proven to be a good predictor of different efficiency and quality of formal institutions today.
- Thus, we have established a precise channel of influence of inherited cultural traits and a causality nexus running from past culture to formal institutions today finally to divergence in income per capita.
- Our model complements the possible and plausible channels of how history influences the current economic outcomes

Thank you  
for your attention

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(d) Correlation between value added per capita and civil trials.



(e) Correlation between the length of trials and the appointed judges (data on appointed judges were kindly provided by the Consiglio Superiore della Magistratura).