

“Local Secessions, Homophily, and Growth. A Model with Some Evidence from the Regions of Abruzzo and Molise (Italy, 1963)”

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The motivation of the paper

- Historically, Abruzzo and Molise have been subject to different kingdoms and/or jurisdictions
- However, the Constitutional Assembly did not grant Molise the status of *Regione*
- Such a status was gained through a long Parliamentary battle over the 50s, leading to formal autonomy in 1963

The question: the status of *Regione*, at the time, did not bring large economic advantages. Why such an effort to split from Abruzzo, then?

The perspective we follow

- The main explanations about secessions and size of jurisdictions are generally based on fiscal factors: local taxation, redistribution of resources across areas, design of local public services, etc...
- But, in the 1950s, Italian fiscal administration was largely centralized. Some devolution occurred much later (from the 1970s on)
- Our explanation for secession is not based on fiscal factors, but on “homophily”, that is, the preference for *homogeneous* communities

A Model

- We consider two communities with conflicting interests, or ‘cultures’
- Each individual of each community has an “homophily” bias. She likes to interact with people of her own kind, and dislikes to interact with people of the other group
- Each individual in this economy will choose a level of “effort” or “investment” which depends on the composition of society
- Individual investment is encouraged by investment of individuals of the same community, and discouraged by investment of individuals from the other community. This behavior pushes towards separation/secession
- By contrast, integrated communities may enjoy valuable “economies of scale”

A Model (2)

More formally:

$$U_i^I = a \cdot x_i - \frac{k}{2} \cdot x_i^2 + b \cdot q^I \cdot x_i \cdot \bar{x}_\alpha - c \cdot (1 - q) \cdot I \cdot x_i \cdot \bar{x}_\beta + A \cdot I + \varepsilon_i. \quad (1)$$

and

$$U_{-i}^I = a \cdot x_{-i} - \frac{k}{2} \cdot x_{-i}^2 + b \cdot (1 - q)^I \cdot x_{-i} \cdot \bar{x}_\beta - c \cdot q \cdot I \cdot x_{-i} \cdot \bar{x}_\alpha + A \cdot I + \varepsilon_{-i} \quad (2)$$

People can also decide to move away, getting utility:

$$\tilde{v}_i = \tilde{u} + \tilde{\varepsilon}_i \quad (3)$$

Main theoretical implications

- 1) The smaller community suffers relatively more from an integrated heterogeneous society. Thus, if separation occurs, it will be driven by the minority group
- 2) The larger community (majoritarian) can either benefit or loose from secession
- 3) If secession is beneficial for the average community member, the incentive to migrate away is reduced

Empirical implications

- Theory predicts that a beneficial separation tends to reduce population outflows.

Thus, we should observe that Molise population increases, while Abruzzo's population (majoritarian) may either increase or decrease.

- Moreover, since homophily increases individual incentives to invest (be it productive investment or social capital building, which trust), secession *may* also generate higher economic growth

Evidence: population dynamics in Molise and Abruzzo

- We would like to use the Synthetic Control method (SC) using other (than Abruzzo and Molise) Italian Southern regions as controls but the SC routine is not implementable due to impossibility to mimic pre-trends in the treated regions.
- We therefore resort to a Difference-in-Differences approach (DID) using municipality data and show that:
 - i) the 1963 secession increased local population dynamics in both Molise and Abruzzo
 - ii) the positive impact on population began right after the separation

Such results are consistent with the idea that the taste for sameness was the primary driver of the split

Evidence: population dynamics in Molise and Abruzzo (2)

	DID	DID	DID, only Abruzzo as treated	DID, only Molise as treated
	(1)	(2)	(3)	(4)
1961-51 growth rate X TREAT (ref.)				
1971-61 growth rate X TREAT	0.026** (0.012)	0.046*** (0.014)	0.035** (0.014)	0.076*** (0.013)
1981-71 growth rate X TREAT	0.062*** (0.015)	0.097*** (0.017)	0.086*** (0.018)	0.135*** (0.012)
1991-81 growth rate X TREAT	0.082*** (0.014)	0.102*** (0.016)	0.099*** (0.018)	0.136*** (0.013)
Covariates	No	Yes	Yes	Yes
No. of observations	9052	9052	8532	7924

Notes: All the regressions include a dummy for the treatment (TREAT), time fixed effects (1971-61; 1981-71 and 1991-81), and the constant. We use as covariates 18 relevant predictors (demographic, economic and social) of population growth at the municipal level. At any decade, we include the decadal initial level of: percentage of residents in scattered houses over total population; masculinity ratio (i.e. ratio between males and females population); ageing index (i.e. ratio between 65+ and 0-14 years old population); average household size; home ownership rate (i.e. ratio of owner-occupied units to total residential units); employment rate; a measure for local wages (WZ); an index for gender differences in educational attainments (i.e. ratio of percentages of males and females – in terms of 6+ years old respective population - having a high school or higher level of education); a raw index for educational level (i.e. percentage of people with high school degree or higher level of education over 6+ years old population). All the covariates are also included in decadal growth rates. Robust standard errors clustered at the provincial level (NUTS 3). Significance level at ***1%, **5%, *10%.

Testing the parallel trend assumption

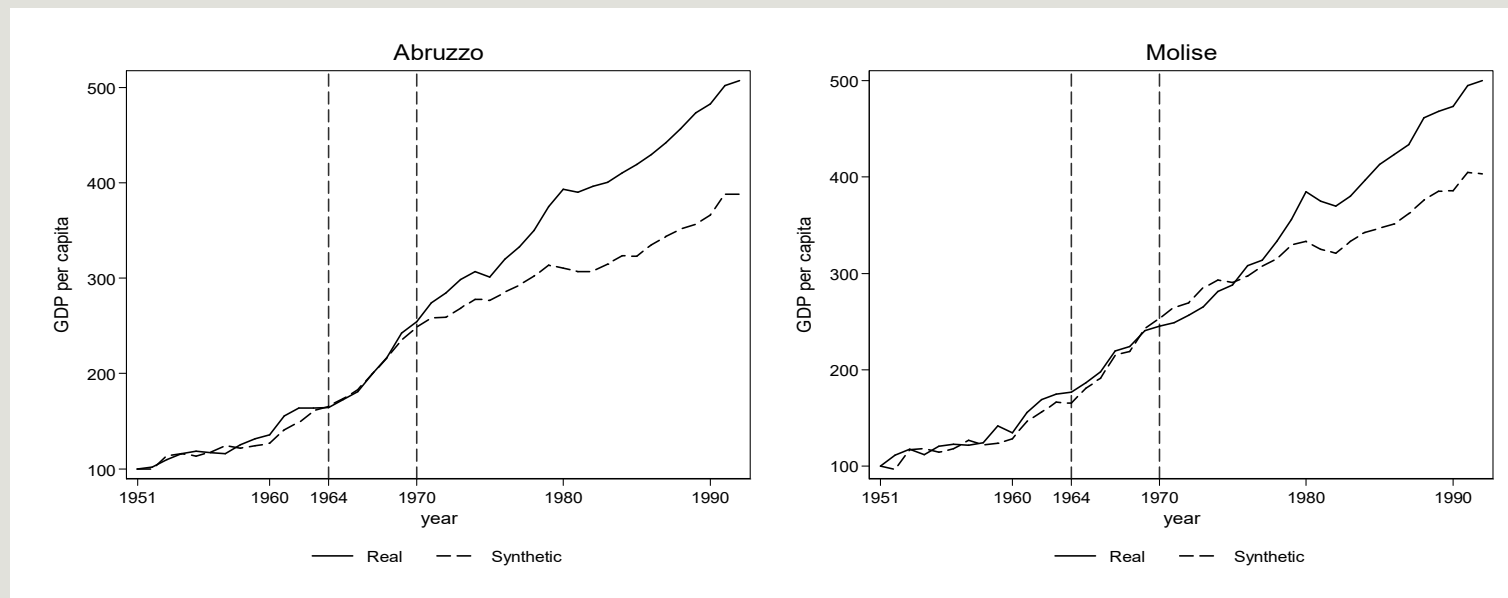
	DID	DID, only Abruzzo as treated	DID, only Molise as treated
	(1)	(2)	(3)
1951-36 growth rate X TREAT (ref.)			
1961-51 growth rate X TREAT	-0.008 (0.021)	-0.001 (0.021)	-0.023 (0.037)
Covariates	No	No	No
No. of observations	4526	4266	3962

Notes: All the regressions include a dummy for the treatment (TREAT), time fixed effects (1971-61; 1981-71 and 1991-81), and the constant. Covariates are not available for years before 1951.

Evidence: Economic growth in Molise and Abruzzo

- We also experimented using GDP growth
- Use Synthetic control approach with other Southern regions as controls
- For both Abruzzo and Molise secession seems to have produced a positive impact on growth
- Over the period 1970-1992, the benefits of secession amounted to roughly a 1% per-year increase in per-capita GDP in both regions

Evidence: Economic growth in Molise and Abruzzo (2)



Notes: The graphs report the GDP per capita (index 1951=100) of the treated regions (Abruzzo and Molise) and of the respective synthetic control. The weights are: Apulia (0.101), Sicily (0.397) and Sardinia (0.502) for the Abruzzo region; and Apulia (0.589), Basilicata (0.233), Calabria (0.164) and Sicily (0.013) for the Molise region. We include in the SC routine: the initial level of GDP per-capita, past GDP per-capita growth rate, the investment-to-GDP ratio, the share of highly educated as a proxy for human capital, population density, net imports-to-GDP ratio, and the sectoral composition of value added (agriculture, industry, market service). We also use a measure of the local minimum wage, which might have affected the regional distribution of economic activity during our estimation window

Evidence: Economic growth in Molise and Abruzzo (3)

- We develop a growth accounting exercise adopting a Cobb-Douglas production function with constant returns to scale in capital and labor (Barro, 1999)
- Our findings suggest that public employment policies were not the channel which generated the gains from the split

Robustness exercises

We ran a list of robustness exercises on SC estimates:

- Placebo study
- Root mean squared prediction error test
- We used Central-Northern regions as the donor pool
- We considered the expansion of organized crime in some regions (Apulia and Basilicata)
- We considered effects due to “special statute” regimes and oil crises effects in the 1970s and 1980s (Sicily and Sardinia)
- We considered effects due to the choice of the main donor (Sardinia in the case of Abruzzo; Apulia in the case of Molise)
- Fake experiment with treatment’s start

Results are robust

Sum-up

- Social cohesion stronger in homogeneous societies, (although cultural diversity may be very valuable!)
- Conflicts often do not arise for economic reasons, but for deeply-rooted cultural clashes among communities.