The Political Economy of Regional Development: Evidence from the *Cassa per il Mezzogiorno*

Tancredi Buscemi [1]   Giulia Romani [2]

[1]University of Siena

[2]University of Bologna

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Research question and aims

We study whether devolution of authority over public investments can generate dynamics of distributive politics, in the form of partisan alignment effects.

$\rightarrow$ Quasi-natural experiment:

the institutional reform (1971) of the *Cassa per il Mezzogiorno* (CasMez), a massive investment programme for the development of Southern Italy implemented between 1950 and 1984.

Related literature and contribution

1. Rules versus discretion, centralisation versus decentralisation
   Bandiera et al. (2009 and 2021); Decarolis et al. (2020)

   Trade-off between efficiency and corruption in settings with different degree of discretion(vs rules) and decentralisation(vs centralisation). Mostly on public procurement.

   We focus on public investments and highlight the political distorsions that can arise from devolution processes.

2. Distributive politics (Golden and Min, 2013)
   $\rightarrow$ Partisan alignment
   Solé-Ollé and Sorribas-Navarro (2008); Bracco et al. (2015)

   Political economy of funds allocation: upper-tiers of government tend to favour lower-tiers ruled by the same political party.

   We investigate whether and how partisan alignment effects depend on the broader institutional setting; specifically, on the degree of centralisation.

The CasMez's institutional setting
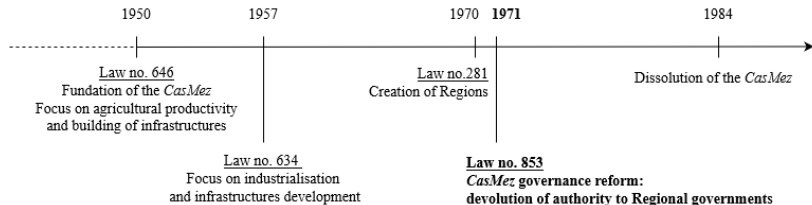
In 1971, the authority over funds allocation was transferred from a central committee of technicians to the newborn Regional governments.

Our hyp: the reform exacerbated the moral hazard incentives for Regional governments to distribute funds to achieve electoral consensus.

The CasMez's institutional setting (2)

Previous literature on the CasMez highlights that decentralisation reduced the programme's efficacy (Trigilia, 1992; Sbrescia, 2014; Felice and Lepore, 2017).

After 1971, the historical legacy of social capital regained importance (D'Adda and De Blasio, 2016) and the North-South gap widened again:
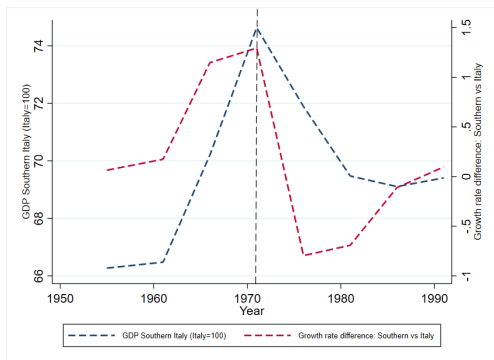
Source: Buscemi (2022)

The CasMez's tale

Nowadays the CasMez experience is associated to:

The CasMez's tale

Nowadays the CasMez experience is associated to:

key infrastructures ...

The CasMez's tale

Nowadays the CasMez experience is associated to:

key infrastructures ...

but also ... to underdevelopment trap.

Data and sample selection

Sources:

- Local administrators `Archival evidence`
  Anagrafe degli Amministratori Locali (Italian Ministry of Interior)
  name, occupation, education, political affiliation and position of each member of the municipal council.

- CasMez funds
  ASET- Archives of Territorial Economic Development
  project-level information on timing, location, amount, type and purpose of each fund granted by the CasMez.

- Municipal characteristics and local economic outcomes
  Italian censuses (ISTAT- Italian Institute of Statistics).

Focus on:

- 374 municipalities with more than 10,000 residents by 1971
 `In/Out-of-sample municipalities`

- 1960-1984 `period`

Time evolution of investments

Figure: (Average) Number of project approvals
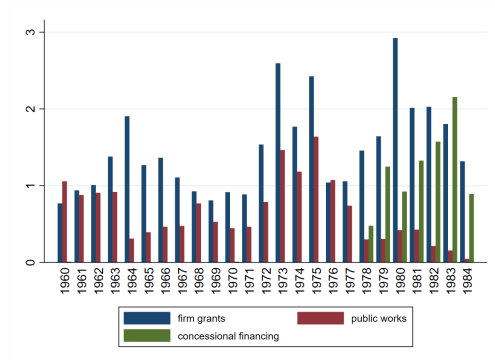
Type of fund	Description	Time span
Public works	Infrastructure investments	1950-1984
Firm grants	Non-refundable contributions for firms' investments	1950-1984
Concessional financing	Loans with interests below the market rate for firms' investments	1978-1984

Figure: Parties ruling sample municipalities and Regions (1971)
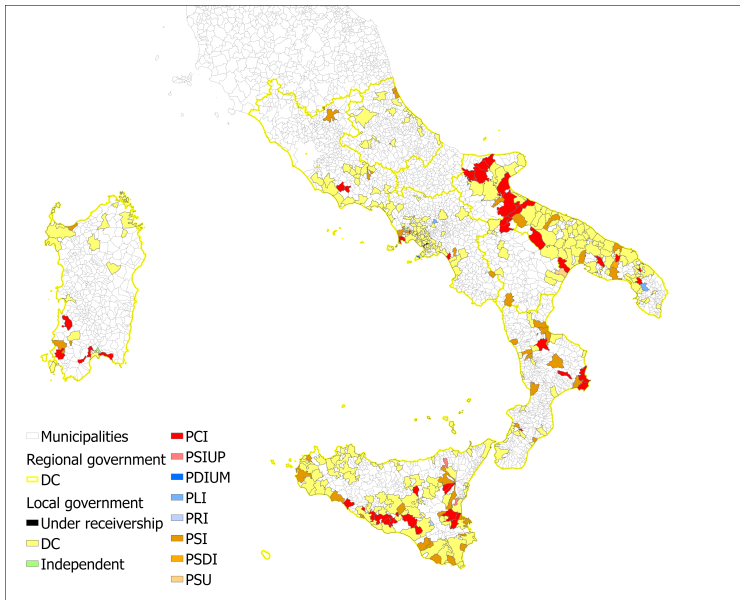
Alignment status

Before 1972, $= 0$ for all municipalities

In 1972,
$= 1$ if local government $=$ Regional government in 1971
$= 0$ if local government $\neq$ Regional government in 1971

Afterwards,

- ▶ Restricted post-treatment period (up to first electoral turn)
  Maximal internal validity: no municipality could adjust to the institutional change through local elections.

- ▶ Extended post-treatment period (up to 1984 - end of CasMez)
  We keep the defined status and/or set to missing if change alignment status.

$\Rightarrow$ Post-treatment periods of different length.

Figure: Sample municipalities: aligned vs unaligned ones (1971)

Municipalities
Regions
Aligned municipalities
no
yes
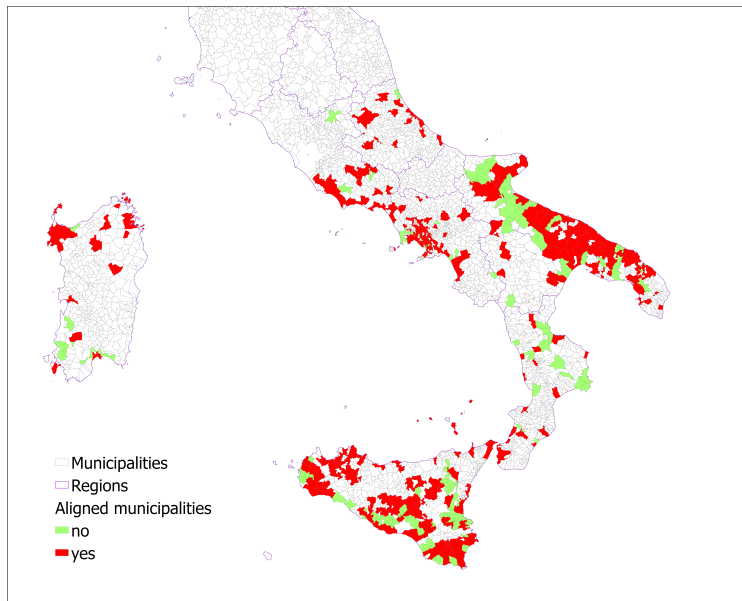
Identification strategy

TWFE estimation (Goodman-Bacon, 2021):

$$y_{it} = \alpha + \beta \, Alignment_{it} + \gamma_i + \gamma_i \, t + \delta_{rt} + \epsilon_{it}$$

where,

y_{it}: number of project approvals; distinguishing by type of funds

$Alignment_{it}$: alignment status

γ_i: municipality fixed effects

$\gamma_i \, t$: municipality-specific linear time trends

δ_{rt}: year-region fixed effects

Standard errors clustered at municipality-level (Bertrand et al., 2004)

Main results (1)

Table: TWFE estimation: from 1960 to the first municipal elections after the CasMez reform (1971)

| | Numb. of project approvals | | |
	Total	Firm subsidies	Public works
Alignment	0.823***	0.409**	0.414**
	(0.2799)	(0.1936)	(0.1783)
Municipality fixed effects	✓	✓	✓
Municipality time trends	✓	✓	✓
Region-Year fixed effects	✓	✓	✓
R-squared	0.709	0.652	0.484
N	5311	5311	5311

Province-clustered se   Cross-region analysis   Without time trends   Average size of funds

Main results (2)

$$y_{it} = \alpha + \beta \, Alignment_{it} + DC_{it} + \gamma_i + \gamma_i \, t + \delta_{rt} + \epsilon_{it}$$

where, DC_{it}: dummy for the Christian Democracy ruling the municipality

Table: TWFE estimation, controlling for DC: from 1960 to the first municipal elections after the CasMez reform (1971)

| | Numb. of project approvals | | |
	Total	Firm subsidies	Public works
Alignment	0.817***	0.388**	0.429**
	(0.2781)	(0.1958)	(0.1824)
DC	0.051	0.190	-0.139
	(0.1275)	(0.1920)	(0.1082)
Municipality fixed effects	✓	✓	✓
Municipality time trends	✓	✓	✓
Region-Year fixed effects	✓	✓	✓
R-squared	0.709	0.652	0.484
N	5311	5311	5311

Endogenous alignment probability?

If funds received in the previous legislature influence re-election probability, our definition of alignment status may introduce a selection bias in the estimation.

Table: Alignment probability and funds received: cross-section analysis

	Alignment probability (first electoral turn after CasMez reform)
Numb. of project approvals	0.002
(1972-first electoral turn)	(0.0020)
Region fixed effects	✓
R-squared	0.037
N	310

Table: TWFE estimation (1960-1984)

| | Numb. of project approvals | | |
	Total	Firm subsidies	Public works
Alignment	0.604***	0.331**	0.273*
	(0.2280)	(0.1516)	(0.1458)
DC	✓	✓	✓
Municipality fixed effects	✓	✓	✓
Municipality time trends	✓	✓	✓
Region-Year fixed effects	✓	✓	✓
R-squared	0.702	0.692	0.437
N	7728	7728	7728

Pre-reform alignment

Placebo: Pre-reform period

Table: TWFE estimation: Placebo alignment over the period 1960-1971

| | Numb. of project approvals | | |
	Total	Firm subsidies	Public works
Placebo alignment	-0.010	0.076	-0.086
(1965-1971)	(0.1980)	(0.1886)	(0.0937)
Municipality fixed effects	✓	✓	✓
Municipality time trends	✓	✓	✓
Region-Year fixed effects	✓	✓	✓
R-squared	0.654	0.574	0.484
N	4488	4488	4488

Event study

$$y_{it} = \alpha + \Sigma_{m=-G}^{M} \beta_m \, z_{i(t-m)} + DC_{it} + \gamma_i + \gamma_i \, t + \delta_{rt} + \epsilon_{it},$$
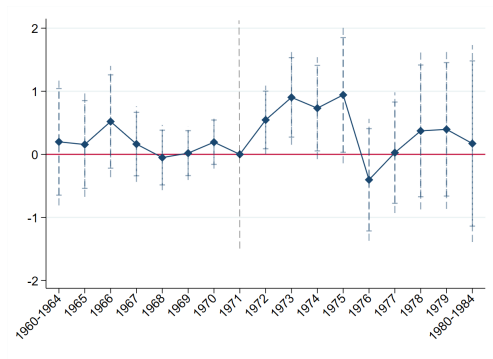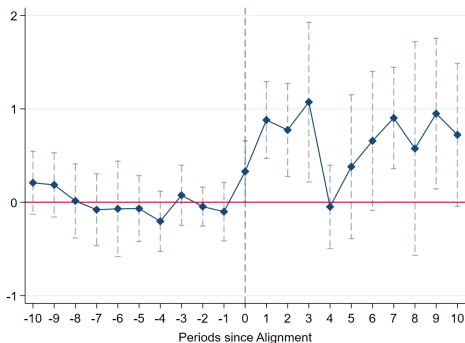

Treated by period   Type of funds

De Chaisemartin and d'Haultfoeuille (2022)

TWFE estimation method which allows treatment to switch on and off at different points in time
$\Rightarrow$ employ a raw measure of alignment status without discarding any obs.

Avg. Total Effect: 0.70

Type of funds First-stage

Further results: Mayor's characteristics

Age: mean 46.6 years, sd 9.74; min 22; max 88

Education: primary school (5.89%), lower secondary school (7.05%), higher secondary school (27.7%), college degree or above (59.36%)

Occupation:

Occupation	Absolute Numb.	Relative Numb. (%)
Agricultural worker	143	1.53
Architect	7	0.07
Artisan	112	1.20
Clerk	3,611	38.62
Doctor	714	7.64
Entrepreneur	425	4.55
Journalist	20	0.21
Lawyer	1,001	10.71
Magistrate	44	0.47
Manager	145	1.55
Notary	33	0.35
Other	356	3.81
Politician	100	1.07
Professor	17	0.18
Rentier	62	0.66
Retailer	180	1.93
Retired	243	2.60
Self-employed	1,070	11.44
Student	135	1.44
Teacher	860	9.20
Technician	14	0.15
Worker	58	0.62
Total	9,350	100.00

Further results: Mayor's characteristics (2)

Table: TWFE estimation (1960-1984), control for mayor's characteristics

| | Numb. of project approvals | | |
	Total	Firm subsidies	Public works
Alignment	0.552**	0.310**	0.242*
	(0.2335)	(0.1537)	(0.1434)
Mayor's characteristics:			
Age	✓	✓	✓
Education	✓	✓	✓
Occupation	✓	✓	✓
DC	✓	✓	✓
Municipality fixed effects	✓	✓	✓
Municipality time trends	✓	✓	✓
Region-Year fixed effects	✓	✓	✓
R-squared	0.702	0.703	0.453
N	7426	7426	7426

Further results: Municipal coalitions

Table: TWFE estimation (1960-1984), distinguishing by the percentage of council members belonging to mayor's party

| | Numb. of project approvals | | |
	Total	Firm subsidies	Public works
Alignment*[≤ 50%]	0.035	-0.058	0.093
	(0.3081)	(0.2160)	(0.1737)
Alignment*[> 50%]	0.728***	0.436***	0.292*
	(0.2579)	(0.1644)	(0.1612)
Mayor's characteristics	✓	✓	✓
DC	✓	✓	✓
Municipality fixed effects	✓	✓	✓
Municipality time trends	✓	✓	✓
Region-Year fixed effects	✓	✓	✓
R-squared	0.702	0.703	0.453
N	7426	7426	7426

Local economic outcomes

Collapse the dataset to a cross-section and explore the long-run economic effects of funds allocation after and before the reform.

<u>2SLS estimation:</u>

▶ First stage:

$$\sum_{72-84} Funds_i = \alpha + \beta \, Ever\ aligned_i + \gamma \, Municipal\ controls_i + \delta_r + \epsilon_i$$

▶ Second stage:

$$y_{i,91} - y_{i,71} = \zeta + \eta \sum_{72-84} \hat{Funds}_i + \theta \, Municipal\ controls_i + \phi_r + \psi_i$$

$\sum_{72-84} Funds_i$: numb. of funds received over 72-84

$Ever\ aligned_i$: dummy for ever being aligned over 72-84

δ_r: regional fixed effects

$Municipal\ controls_i$: land area, elevation, coastal/island municipality

$y_{i,91} - y_{i,71}$: long-run growth rate in local economic outcomes

Local economic outcomes

Outcomes: long-run growth rate of industrial employment, number of local firms, and resident population.

Figure: Long-run economic effects of funds allocation

a. Post-reform (1971-1991)　　　　b. Pre-reform (1961-1971)
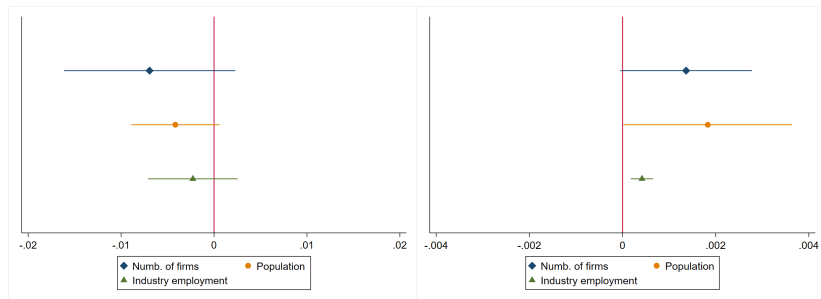
Concluding remarks

Findings:

- ▶ the devolution process brought about by the 1971 reform fostered dynamics of tactical distribution in the allocation of CasMez funds;

- ▶ the effect is driven by local councils where $> 50\%$ of members belong to mayor's party, while mayors' individual characteristics seem not to play a role in the allocation of funds;

- ▶ no impact is detected on long-run local economic outcomes after the reform, while we find positive correlations between local economic outcomes and CasMez funds in the pre-reform period.

In institutionally-fragile settings, the devolution of authority can induce agency problems in the allocation of public investments.

Thank you!
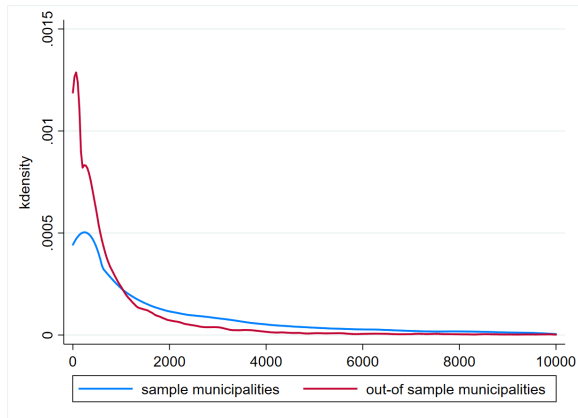*giulia.romani11@unibo.it*

Appendix

Figure: Example of archival file

Appendix

Figure: Distribution of funds across in/out-of-sample municipalities

Appendix

Figure: Time distribution of funds (1950-1984)
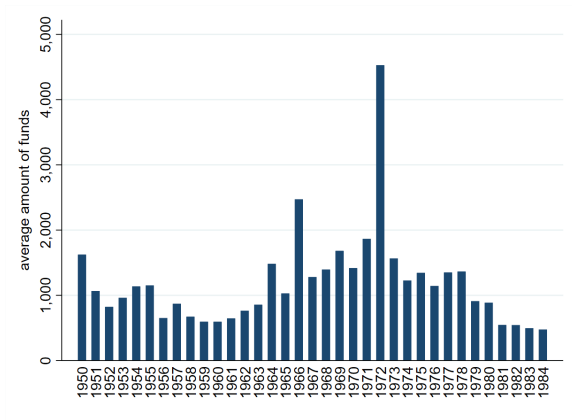
Appendix

Table: Italian parties acronyms and full names

Acronym	Full Name
DC	Christian Democracy
MSI	Social Italian Movement
PCI	Italian Communist Party
PDIUM	Italian Democratic Party of Monarchical Unity
PLI	Liberal Italian Party
PRI	Republican Italian Party
PSDI	Italian Democratic Socialist Party
PSI	Italian Socialist Party
PSIUP	Italian Socialist Party of Proletarian Unity
PSU	Socialist Unitarian Party
USCS	Sicilian Christian Social Union

Back

Appendix: province-clustered se

Table: TWFE estimation, province-clustered standard errors: from 1960 to the first municipal elections after the CasMez reform (1971)

| | Numb. of project approvals | | |
	Total	Firm subsidies	Public works
Alignment	0.823***	0.409*	0.414**
	(0.2263)	(0.2124)	(0.1788)
Municipality fixed effects	✓	✓	✓
Municipality time trends	✓	✓	✓
Region-year fixed effects	✓	✓	✓
R-squared	0.709	0.652	0.484
N	5311	5311	5311

Back

Appendix: cross-region analysis

Table: TWFE estimation, cross-region analysis: from 1960 to the first municipal elections after the CasMez reform (1971)

| | Numb. of project approvals | | |
	Total	Firm subsidies	Public works
Alignment	0.807***	0.459**	0.348**
	(0.2692)	(0.1852)	(0.1729)
Municipality fixed effects	✓	✓	✓
Municipality time trends	✓	✓	✓
Year fixed effects	✓	✓	✓
R-squared	0.704	0.645	0.483
N	5313	5313	5313

Back

Appendix: no time trends

Table: TWFE estimation, not controlling for municipalities-specific linear time trends: from 1960 to the first municipal elections after the CasMez reform (1971)

| | Numb. of project approvals | | |
	Total	Firm subsidies	Public works
Alignment	0.748**	0.479**	0.270
	(0.3050)	(0.2320)	(0.1687)
Municipality fixed effects	✓	✓	✓
Region-year fixed effects	✓	✓	✓
R-squared	0.667	0.606	0.440
N	5311	5311	5311

Appendix: average size of funds

Table: TWFE estimation, average size of CasMez funds: from 1960 to the first municipal elections after the CasMez reform (1971)

| | Average size of funds | | |
	Total	Firm subsidies	Public works
Alignment	0.352*	0.426*	-0.297
	(0.2069)	(0.2575)	(0.3417)
Municipality fixed effects	✓	✓	✓
Municipality time trends	✓	✓	✓
Region-Year fixed effects	✓	✓	✓
R-squared	0.307	0.364	0.227
N	3323	2309	1875

Appendix: pre-reform alignment

Table: TWFE estimation (1960-1971): pre-reform alignment between local and National government

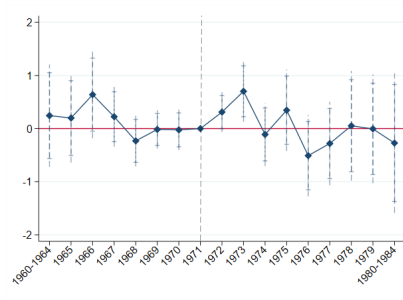|	Numb. of project approvals		
	Total	Firm subsidies	Public works
DC	0.245	0.324	-0.079
	(0.1782)	(0.2169)	(0.0747)
Municipality fixed effects	✓	✓	✓
Municipality time trends	✓	✓	✓
Region-year fixed effects	✓	✓	✓
R-squared	0.654	0.575	0.484
N	4488	4488	4488

Back

Appendix

Table: Number of treated observations by period

| Relative time period		Year	Numb. of Treated obs.	%	% among non-missing
Valid	-12	1960	268	2.87	4.74
	-11	1961	268	2.87	4.74
	-10	1962	268	2.87	4.74
	-9	1963	268	2.87	4.74
	-8	1964	268	2.87	4.74
	-7	1965	268	2.87	4.74
	-6	1966	268	2.87	4.74
	-5	1967	268	2.87	4.74
	-4	1968	268	2.87	4.74
	-3	1969	268	2.87	4.74
	-2	1970	268	2.87	4.74
	-1	1971	268	2.87	4.74
	0	1972	268	2.87	4.74
	1	1973	257	2.75	4.54
	2	1974	254	2.72	4.49
	3	1975	197	2.11	3.48
	4	1976	190	2.03	3.36
	5	1977	183	1.96	3.24
	6	1978	177	1.89	3.13
	7	1979	174	1.86	3.08
	8	1980	152	1.63	2.69
	9	1981	149	1.59	2.63
	10	1982	149	1.59	2.63
	11	1983	146	1.56	2.58
	12	1984	143	1.53	2.53
	Total		5655	60.48	100.00
Missing	.		3695	39.52	
Total			9350	100.00	

Back

Appendix: Event study

Figure: Number of project approvals

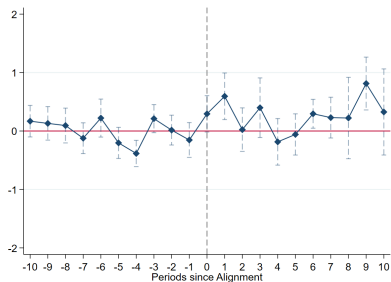### a. Firm subsidies
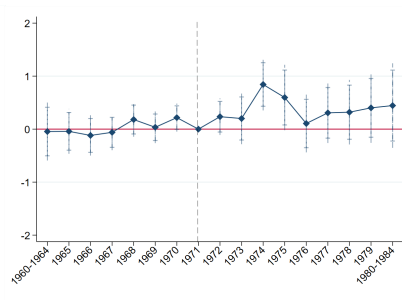
b. Public works

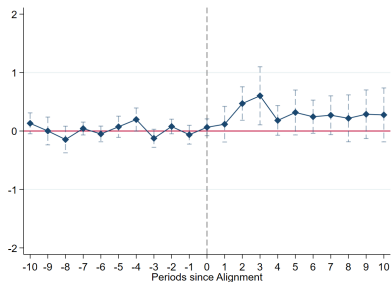

Back

Appendix: dCDH (2022)

Figure: Number of project approvals

a. Firm subsidies
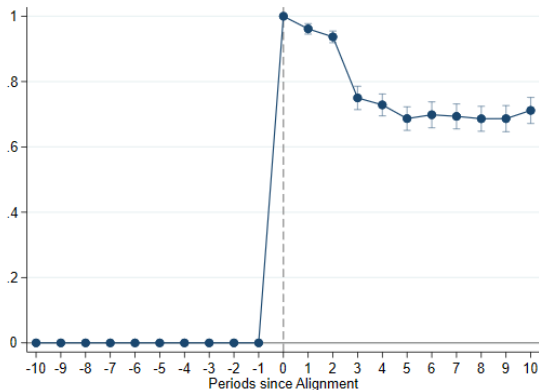
b. Public works

0.34

0.35

Back

Appendix: dCDH (2022)

Figure: First-stage: alignment status, before and after first alignment

Appendix: alternative population threshold

Since 1960, municipalities with

- $< 10{,}000$ residents $\rightarrow$ majoritarian electoral rule
- $> 10{,}000$ residents $\rightarrow$ proportional representation

Table: TWFE estimation: municipalities with $> 12{,}000$ residents in 1971

| | Numb. of project approvals | | |
	Total	Firm subsidies	Public works
Alignment	0.927***	0.464**	0.463**
	(0.2813)	(0.1819)	(0.1784)
DC	✓	✓	✓
Municipality fixed effects	✓	✓	✓
Municipality time trends	✓	✓	✓
Region-year fixed effects	✓	✓	✓
R-squared	0.710	0.697	0.450
N	6015	6015	6015

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