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KEYWORDS

Special Economic Zones (SEZs) | Mezzogiorno | regional development | Difference-in-Differences | Coarsened Exact Matching | Firm Investment | Tax Incentives | PlaceBased Policies

JEL CODE

R11, R58, H25, C23, L52

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The study evaluates the effectiveness of Special Economic Zones (SEZs) as policy instruments aimed at stimulating industrial activity and promoting regional economic development in Italy's underdeveloped Mezzogiorno region. Introduced through Law Decree 91/2017, SEZs offer economic, fiscal, and bureaucratic advantages to attract foreign direct investment and foster economic expansion. Key features include Free Economic Zones that allow duty-free storage and processing of goods, a 50% reduction in corporate income tax, investment tax credits, and simplified administrative procedures. Firms are required to operate within these zones for a minimum of seven years to qualify for benefits.
The study employs a Matching Difference-in-Differences (DiD) model, using the annual value of total fixed assets as a proxy for investment levels, to assess firm behavior and economic performance before and after SEZ implementation. Findings indicate that SEZs have positively impacted high-tech sectors, contributing to reduced regional economic disparities, enhanced local economies, and increased employment. However, the impact varies across regions, with some areas benefiting more than others. The study underscores the importance of refining SEZ policies to involve other significant sectors, such as the food industry, and suggests future regional analyses to explore individual regional effects.

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The Effect of Special Economic Zones on Firms Behaviour: A Preliminary Case Study of Italian Regions

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Abstract

The study evaluates the effectiveness of Special Economic Zones (SEZs) as policy instruments aimed at stimulating industrial activity and promoting regional economic development in Italy's underdeveloped Mezzogiorno region. Introduced through Law Decree 91/2017, SEZs offer economic, fiscal, and bureaucratic advantages to attract foreign direct investment and foster economic expansion. Key features include Free Economic Zones that allow duty-free storage and processing of goods, a 50% reduction in corporate income tax, investment tax credits, and simplified administrative procedures. Firms are required to operate within these zones for a minimum of seven years to qualify for benefits. The study employs a Matching Difference-in-Differences (DiD) model, using the annual value of total fixed assets as a proxy for investment levels, to assess firm behavior and economic performance before and after SEZ implementation. Findings indicate that SEZs have positively impacted high-tech sectors, contributing to reduced regional economic disparities, enhanced local economies, and increased employment. However, the impact varies across regions, with some areas benefiting more than others. The study underscores the importance of refining SEZ policies to involve other significant sectors, such as the food industry, and suggests future regional analyses to explore individual regional effects. These insights are pertinent to the recently introduced Single SEZ policy in 2024, which extends SEZ benefits to the entire Mezzogiorno area, aiming to promote balanced territorial development and address Italy's persistent North-South economic divide.

Keywords: Keywords: Special Economic Zones (SEZs); Mezzogiorno; Regional Development; Difference-in-Differences; Coarsened Exact Matching; Firm Investment; Tax Incentives; Place-Based Policies.
JEL codes: R11, R58, H25, C23, L52.

1. Introduction

Special Economic Zones (SEZ) are defined as economic policy tools designed to stimulate industrial activity within specific geographic areas. These zones offer businesses located within them special economic, fiscal, and bureaucratic advantages, with the goal of boosting local economies and reducing regional disparities.
Over the years, SEZs have spread rapidly, particularly in emerging and transitional economies. From just 845 zones in 1997, the number of SEZs globally has grown to 5,400 across 147 countries by 2018 (Figure 1) (Ambrosetti, 2023). Countries worldwide have adopted SEZs to promote regional economic growth, create jobs, and attract both national and foreign investments.

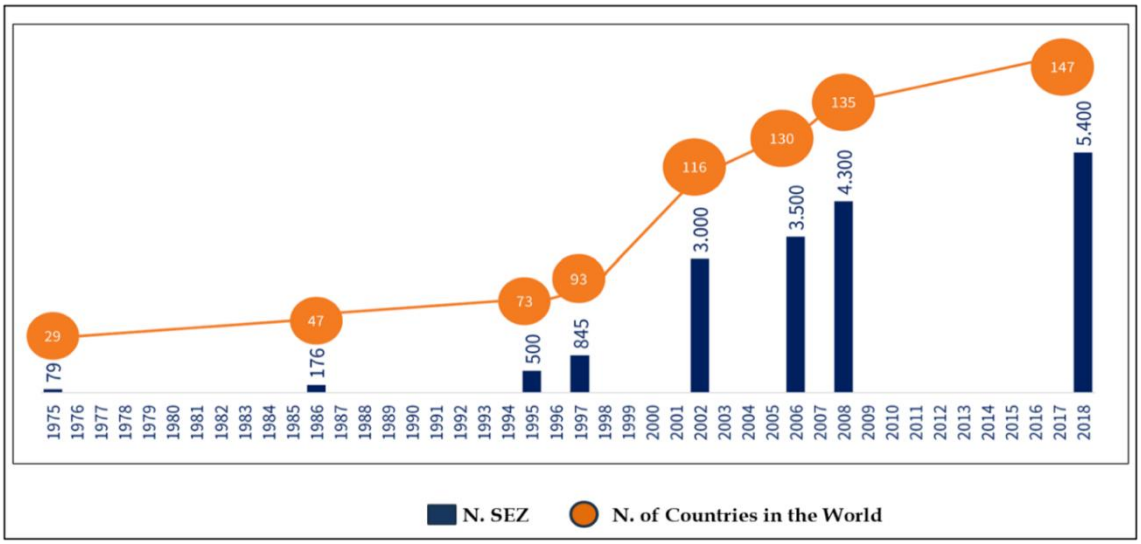


Figure 1: Evolution of the Special Economic Zones in the World (1975 – 2018) (Source: Ambrosetti, 2023)

Italy introduced SEZs in 2017 (Law Decree 91/2017) as part of a strategy to stimulate the lagging southern economy, or Mezzogiorno, which has historically underperformed in comparison to the more industrialized and prosperous North. Italy established 8 SEZs: Abruzzo, Calabria, Campania, Sardinia, Eastern Sicily, Western Sicily, Ionian SEZ (made

of municipalities from Apulia and Basilicata) and Adriatic SEZ (made of municipalities from Apulia and Molise). *Table 5* in the Appendix section provides a list of the SEZ municipalities for each SEZ area.

The Mezzogiorno has long faced a significant economic gap with northern Italy. This discrepancy has hampered the national economic growth and fostered a significant gap between the North and South. SEZs were established to close this gap by the attraction of Foreign Direct Investment (FDI) and promoting economic expansion in these underdeveloped areas.

The main features of the Italia SEZs are: the institution of Free Economic Zones (Zone Franche Doganali), where goods from non-EU nations can be stored duty-free, processed, and subsequently re-exported or re-imported under favourable conditions, represent a key component of Italian SEZs; a tax credit for investments in capital goods (at different rates based on the size of the company and the SEZ); a 50% decrease in corporate income tax; simplified bureaucratic processes.

Firms must be located in a SEZ and continue operating there for at least seven years following the implementation of the investments in order to be eligible for these benefits. The eligibility criteria to qualify for these benefits concern the firms industrial sector[1], size and legal and financial conditions[2].

In Italy, cadastral data is used to identify SEZ areas, and a list of suitable zones is published by each region. These regions are defined geographically and, even though they could not be contiguous, they have to show strong economic ties. Furthermore, at least one port with the attributes specified by EU Regulation 1315/2013 must be a part of any SEZ.

With a special emphasis on the advantageous tax laws namely, the 50% decrease in corporate income tax and the provision of tax credits for capital goods investments this study attempts to evaluate the influence of special economic zones (SEZs) on the conduct and performance of businesses operating inside these zones.

[1] The following sectors are excluded from the SEZs benefits: steel and coal industries, shipbuilding, synthetic fibers, transportation and related infrastructures, production and distribution of energy and energy infrastructures, credit, financial and insurance sectors, agriculture, fishing, and aquaculture.

[2] Firms must be duly registered in the commercial register, must not be in voluntary liquidation nor subject to insolvency proceedings, must not be included among the subjects they have received and, subsequently, not reimbursed or deposited in a blocked account, aids identified as illegal by the European Commission and must not be subjected to interdictive sanctions.

This study compares firms' investment behaviour and economic performance before and after SEZ adoption using a Matching Difference in Differences model. In order to determine if Italy's SEZ strategy has resulted in more investments in the targeted areas, the dependent variable is the annual value of total fixed assets, which acts as a proxy for investment levels.
Additionally, for the first time, the study examines the effects of SEZs across all regions, considering both individual regional outcomes and broader national trends.
This approach allows for a comprehensive analysis of whether the SEZ policy can help narrow the long-standing economic divide between northern and southern Italy.

2. Outline of literature background

Since their first introduction, SEZs have been studied by the economic literature in order to understand and analyze the effect on the economy of territories. Over the years, several works demonstrated, both at a theoretical and empirical level, that Special Economic Zones, when correctly implemented, can foster the economic growth of the entire country in which the SEZ area is located (Zeng, 2015; Johansson & Nilsson, 1997; Akinci & Crittle, 2008).
One pivotal study by Wang (2013) focused on China's SEZs and used panel data to demonstrate that SEZs had a substantial impact on employment and industrial output, particularly in regions with well-established infrastructure (Wang, 2013). A similar study by Chen (1993) found that China's SEZs were instrumental in introducing foreign capital and technology, leading to broader economic benefits beyond the immediate zones (Chen, 1993).
Johansson and Nilsson (1997) analyzed SEZs in several Asian countries, including Indonesia, South Korea, and Malaysia. Their research demonstrated that SEZs were particularly effective at enhancing export performance, as firms operating within the zones were often more competitive internationally (Johansson and Nilson, 1997). In a more recent study, Zeng (2015) emphasized that SEZs, particularly in developing countries, could serve as testing grounds for broader economic reforms, leading to substantial positive spillovers in terms of foreign direct investment (FDI) and employment creation (Zeng, 2015).
Focusing on Africa, Farole (2011) conducted a comparative analysis of SEZs across various African nations, including Kenya, Ghana, and Tanzania. His findings revealed that SEZs led to increased industrial activity and improved infrastructure, although the results varied significantly based on government support and policy consistency (Farole, 2011).
While much of the literature has focused on the success stories in Asia and Eastern Europe, Farole and Moberg (2017) evaluated the global performance of SEZs, cautioning that success is not guaranteed. They emphasized the need for strong governance, transparent policies, and proper

alignment between SEZs and national economic goals to achieve sustained success (Farole and Moberg, 2017).

At the current date, very few works focus their attention on the analysis of the Italian situation. In particular, Buonocore et al. conducted a quantitative analysis of the accessibility characterizing SEZs established in the Campania Region showing the urgent need to fill infrastructural gaps in certain areas and to prevent the creation of new ones in others. Moreover, they highlighted a certain heterogeneity among the existing SEZ areas that might lead foreign investors to choose one specific area over the others (Buonocore et al., 2023) and create disparity in the results also between SEZ of the same region.

Di Ruocco et al. use a Territorial Impact Assessment (TIA) methodology to bolster the role of Special Economic Zones (SEZs) in driving economic growth in the Campania region. This approach seeks to analyze and grasp the distinctive dynamics of Campania's SEZs in comparison to those across the broader Mezzogiorno landscape, highlighting the need for the region of proactive promotion and support from public authorities and stakeholders to ensure that Campania's SEZs can effectively compete with others across Italy (Di Ruocco et al., 2023).

As a conclusion, most of the international literature address to a properly implemented SEZ policy the ability of reducing economic gaps between regional territories boosting the employment levels and the territorial attractiveness. To the best of our knowledge, there are no scientific papers that analyze the effect on firms performance and behaviour of the introduction in Italy of Special Economic Zones for all the SEZ regions.

3. Data

The aim of this study is to assess the impact of the introduction of SEZs on the levels of investment of Italian firms. The empirical analysis is temporarily focused on the firms located in Abruzzo, Basilicata, Calabria and Campania; hence, the current sample includes all manufacturing firms located in those regions for the period 2016 – 2022. The data has been extracted from AIDA, the Bureau Van Dick database which contains information about financial statements of Italian firms. In order to identify the firms located in a SEZ area, the geographical coordinates of each firm have been converted into cadastral data using *Mappe Catasto*, an online service that allows to overlay cadastral and geographic maps in Italy. *Figure 2* shows the geographical distribution of all the Italian SEZ areas.

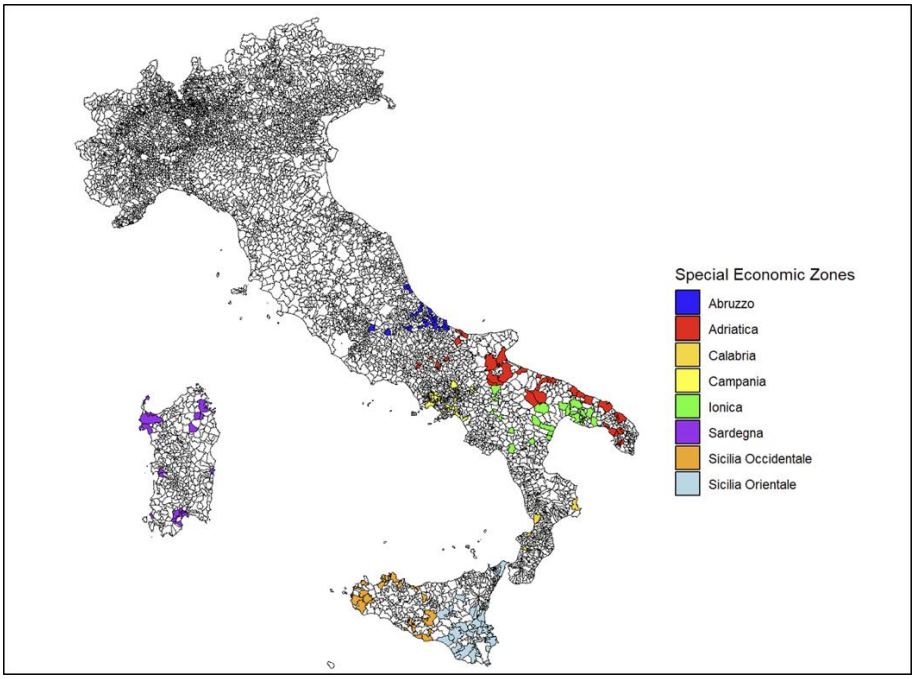


Figure 2: Geographical distribution of SEZ areas (authors' elaboration with R)

The dataset used for this analysis is a balanced panel of 6,472 companies, of which 431 located specifically in a SEZ area. Each firm has been observed for seven years, leading to a total of 45,304 observations.

Figures 3 and 4 show the distribution of firms operating within **SEZ** and those outside these zones, categorized by sector, across the analyzed Italian regions. Looking at SEZ firms, it is worth noting that ***Computer and Electronics Manufacturing*** emerges as the most prominent sector for SEZ firms, particularly in **Campania**, where it significantly surpasses all other sectors with nearly 60 companies (*Figure 3*). The presence of this sector in SEZ areas is far more pronounced compared to non-ZES zones, suggesting that the incentives provided by the ZES scheme might be particularly appealing to companies in high-tech and electronic industries. In contrast, traditional manufacturing sectors like ***Metallurgy*** and ***Machinery Manufacturing*** show moderate representation in ZES regions, with Campania once again leading, although **Abruzzo** and **Basilicata** also register activity in these fields. The ***Food and Beverage Industries*** also have a modest presence in ZES areas, with **Abruzzo** showing slightly higher numbers than the other regions.

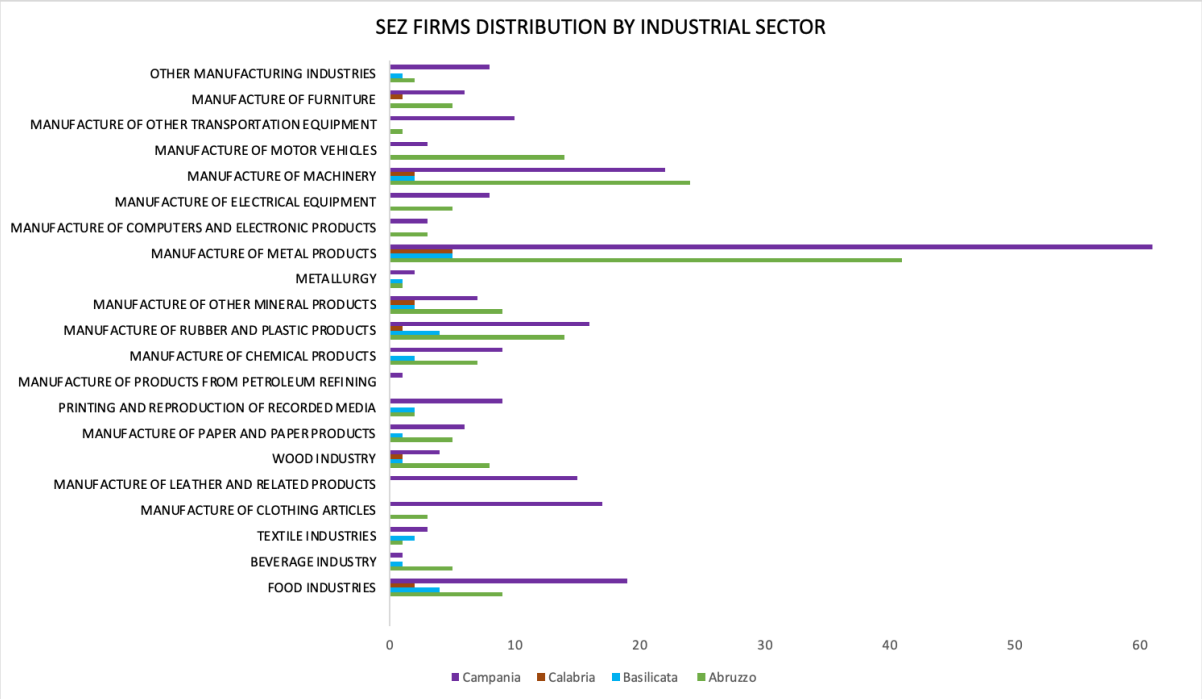


Figure 3: SEZ firms distribution by industrial sector (authors' elaboration)[3]

Turning to the sectoral distribution of **non-SEZ firms (*Figure 4*)**, a much larger and more diversified industrial landscape becomes evident. In this case, ***Metallurgy*** and ***Food Manufacturing*** dominate, particularly in **Campania**, where the number of firms exceeds 500 in the food sector alone. This difference between SEZ and non-SEZ firms indicates that more traditional industries find less incentive to relocate to SEZ regions, remaining highly concentrated in non-ZES areas. Additionally, sectors like ***Paper Products***, ***Wood***, and ***Textile Manufacturing*** are significantly more prevalent outside the SEZ zones. Interestingly, ***Computer and Electronics Manufacturing***, which is so prominent in SEZ areas, has a much smaller diffusion in non-SEZ regions, highlighting the attractiveness of the SEZ policy for this specific sector.

Overall, it is possible to state that **non-SEZ zones** support particularly traditional sectors such as ***Metallurgy***, ***Food Manufacturing,*** and ***Textiles***. In contrast, **SEZ areas** appear to attract more specialized and high-tech industries such as ***Electronics***.

[3] To complete, with the data of the other Regions

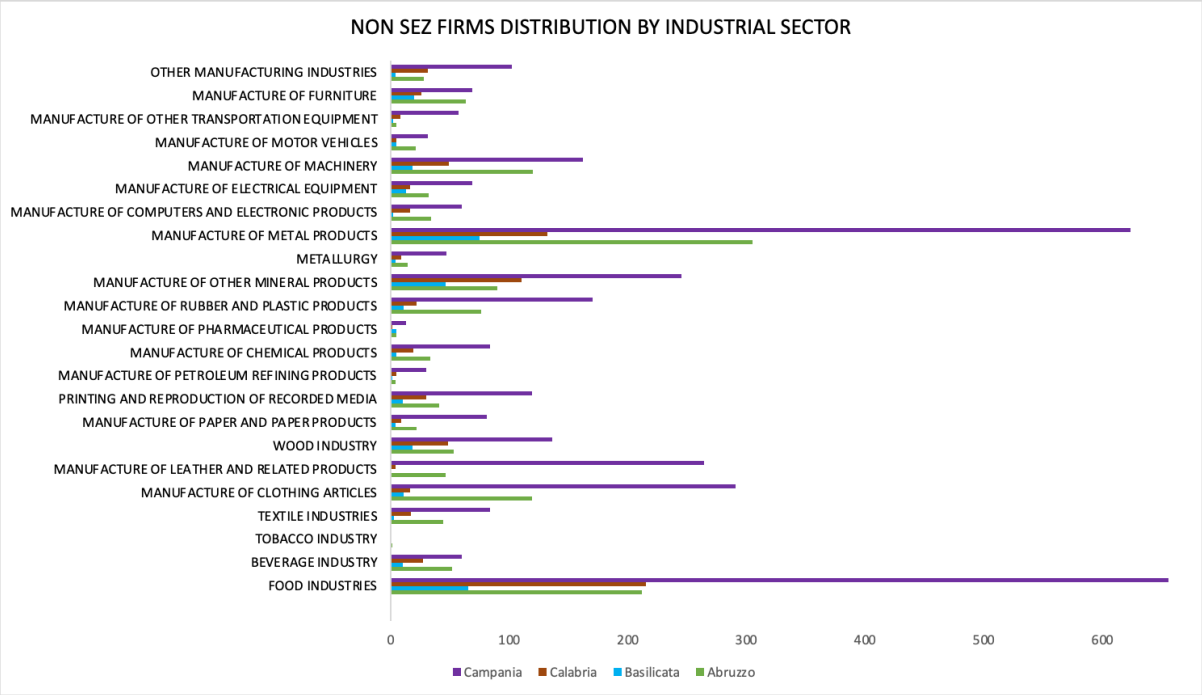


Figure 4: Non SEZ firms distribution by industrial sector (authors' elaboration)[4]

Table 1 shows the data source and the definition of the variables used in this work.

Variables	Unit	Data Source	Definition
Total Fixed Assets	Euro (€)	AIDA	Stock value of total fixed assets.
SEZ	Dummy	-	It takes 1 if a firm is located in a Special Economic Zone and 0 otherwise.
Post	Dummy	-	It takes 1 for the years of treatment (2020-2022) and 0 otherwise.
Value of Production	Euro (€)	AIDA	Annual revenue generated by each firm.
Employees	No.	AIDA	Number of employees in each firm.

Table 1: Data sources, variables and definitions

In order to measure the investment dynamics of firms and their level of efficiency, in line with the literature (Bloom et al., 2002; Klemm and Van Parys, 2012; Liu and Mao, 2019; Lyon, 1989), it has been chosen to use total fixed assets as the dependent variable, which is strictly connected to the firm's level of investment. Using total fixed assets as the dependent variable allows to verify

[4] To complete, with the data of the other regions

whether the implementation of the SEZ policy in Italy has led to higher levels of investments for the firms located in the area.

Moreover, to take into account the economic and financial features of each firm and the related production function, value of production and number of employees have been chosen as matching variables.

Finally, two dummy variables have been used: the SEZ variable, indicating the presence of the treatment in case of a firm located in a SEZ area, and the variable Post, which assumes value 1, from the year in which the policy has been introduced (2021-2022) and 0 otherwise (2016-2020). For this work it has been chosen to use 2021 as the cut off year to evaluate the effects of the policy, since in 2021 there has been the introduction of the tax credit for investments in capital goods and the institution of *Sportello Unico*[5] (Law Decree 77/2021).

Table 2 contains the summary statistics of the analyzed variables for the period 2016-2022.

Variables	Mean	Std Deviation	Minimum	Maximum
Total Fixed Assets	2,223.056	12,450.8	0	470,359
Value of Production	5,170.018	24,192.78	-2,528	959,661
Employees	20.15	73.437	0	3,422

Table 2: Descriptive statistics for each variable observed over the period 2016 - 2022.

Table 3 and 4 report the mean values of each variable per year and per region for the treated and the control group. Comparing the values of each group, it is worth noting that, overall, the firms located in a SEZ area show higher values for all the analyzed variables. Moreover, at a general level it is possible to observe an increasing trend from 2016 to 2022 for both groups.

	Value of Production	Employees	Total Fixed Assets
SEZ firms			
2016	10,976.7	39.39252	4,312.698
2017	12,061.35	40.95316	4,557.207
2018	12.183,15	44.96721	4,834.270
2019	12,451.76	45.54245	4,878.236
2020	11,745.15	45.98824	6,137.546

[5] *Sportello unico* is the unified interface for submitting single authorization applications concerning investment projects located in the eight SEZ regions.

2021	13,527.37	46.22066	6,261.011
2022	16,316.07	47.28806	6,361.877
Non- SEZ firms			
2016	3,893.846	16.29389	1,611.627
2017	4,164.721	17.12820	1,692.332
2018	4,357.499	17.57066	1,732.172
2019	4,491.342	19.29260	1,841.552
2020	4,277.321	19.16927	2,258.644
2021	5,095.042	19.49630	2,379.275
2022	6,204.162	20.00808	2,522.844

Table 3: Descriptive statistics (mean values) by year (treated vs control groups)

	Total Fixed Assets		**Value of Production**		**Employees**		**Observations**		**N. of Firms**	
	SEZ	**Non SEZ**	**SEZ**	**Non SEZ**	**SEZ**	**Non SEZ**	**SEZ**	**Non SEZ**	**SEZ**	**Non SEZ**
Abruzzo	7,790	2,677	19,563	6,083	62	25	1,029	9,793	158	1,399
Basilicata	3,890	2,330	8,138	3,714	27	20	196	2,324	28	332
Calabria	1,186	1,001	3,234	1,921	19	10	98	5,698	14	814
Campania	4,189	1,938	9,538	4,784	36	18	1,610	24,178	231	3,454

Table 4: Descriptive statistics (mean values) by region (treated vs control groups)

4. Methodology

Difference-in-differences (DiD) is a method frequently used to assess the impact of policies and programs on distinct groups. It contrasts the outcomes of a treatment group that received the intervention with a control group that did not, both before and after the intervention. The treatment effect is identified by comparing the outcome variables between these two groups. Verifying the parallel trend assumption, which posits that the treatment and control groups would have followed similar trends over time in the absence of the intervention, is crucial. This ensures that the effect on the outcome variable can be attributed to the policy or program. For this reason, we employ a two-step analysis in this study, where the first step involves matching. This approach

allows us to construct a counterfactual group that closely resembles the treatment group in terms of observable characteristics. In this case, the variables used for matching include Employees, Total Assets, Value Added, and Total Sales.

The possibility of applying statistical inference relies on the assumption of i.i.d. (independent and identically distributed). This assumption holds true only when the sample is obtained through simple random sampling. This approach is valid only when there is an exact match between the treated and control units for the covariates used in the model during the pre-treatment period, while still adhering to the parallel trend assumption. However, in most cases, especially when analyzing finite data and continuous variables, using matching techniques (such as nearest neighbour matching, radius matching, kernel matching, etc.) based on perfect matching via propensity score would result in the loss of a significant number of observations, violating the requirement for exact matching (Iacus et al., 2012). Iacus et al. (2012, 2019) propose an improvement by demonstrating that replacing simple random sampling with stratified sampling makes matching techniques consistent with their theoretical foundations. Unlike other matching estimators that often violate the principle of simple random sampling, Coarsened Exact Matching (CEM) remains consistent with its theoretical basis (Iacus et al., 2019). Therefore, using CEM as an estimator provides greater credibility to the analysis results. The CEM algorithm falls into a class of matching methods called "monotonic imbalance bounding," which seeks to limit the maximum level of imbalance in distribution characteristics through an ex-ante selection (in the case of CEM, this is coarsening).

Given a sample of n units randomly drawn from a population N ($with\ n \leq N$) and one unit i that receives treatment, denoted as T_i:

T_i = 1 if the unit receives the treatment, otherwise T_i= 0.

In this context, the outcome variable of interest, Y, takes a value of zero (Y_i = 0) if unit i does not receive the treatment, while it takes a value of one (Y_i = 1) if unit i receives the treatment. The outcome is then given by $Y = T_i\, Y_i(1) + (1 - T_i)Y_i(0)$.

The primary challenge is that $Y_i(0)$ cannot be observed when the unit receives the treatment, and similarly, Y_i (1) cannot be observed when the unit does not receive the treatment, which is the classic issue of causal inference.

The application of the CEM algorithm addresses this challenge by creating a copy of the covariates chosen for matching. The variables X^* (representing the set of covariates) are then divided into meaningful strata (such as equal-sized intervals or intervals of varying sizes).

A unique stratum is then created for each X^*, and each observation is assigned to a stratum. The created strata are added to the original dataset, and any stratum that lacks at least one treated and one untreated observation is excluded from the sample.

It is important to emphasize that the control group comprises only firms not located within SEZs and, therefore, not affected by the policy. The key characteristic of the counterfactual group is that it consists of firms not located within SEZs and thus not subject to the policy. The purpose of the

matching process is to balance the distribution of observable characteristics between the treatment and control groups, making them more comparable to isolate the treatment effect.
Our DiD regression model assumes the following specifications:

$$TFA_{i,m,t} = \alpha + \beta_1 SEZ_i + \beta_2 Post_t + \beta_3 SEZ_i \, x \, Post_t + \varepsilon_{i,t} \quad [1]$$

Where the dependent variable TFA measures the *total fixed assets* of a firm i, located in the municipality m, in year t, "*Post*" is a dummy variable that denotes the period after the introduction of the policy (2019), and SEZ is a dichotomous variable indicating whether the company is located in an SEZ territory. Additionally, to isolate the effect of the introduction of the treatment, fixed effects (FE) and time effects (TE) have been included in the estimation.
To enhance the validity of the results, a robustness check has been conducted through the implementation of the Coarsened Exact Matching (CEM), as developed by Iacus et al. (2012, 2019). The implementation of CEM allows to respect the assumption of independent and identically distributed (i.i.d.) observations by replacing simple random sampling with stratified sampling.
Using CEM, observations are assigned to strata based on the values of their covariates. Each stratum created must contain at least one treated and one untreated observation. Strata that do not meet this criterion are discarded and not considered in the sample. This ensures that the matched sample includes only comparable treated and untreated observations.
In order to implement the CEM matching procedure, *value of production* and *employees* have been chosen as matching variables.

5. Findings – Discussion

Table 5 presents the results of DiD analysis using 2021 as cut off year. Looking at the Average Treatment Effect on Treated (ATET) results, it is worth noting that the coefficient is positive and highly significant (1%). However, since the P-value resulting from the parallel trend test is lower than 0.10, it is not possible to state the presence of a parallel trend for treated and control groups before treatment. Therefore, the results cannot be considered reliable and it is necessary to use a Matching Difference in Differences.

Total Assets	***Coefficient***	***Rob. Std. error***	***t***	***P>|t|***
ATET Treatment (1 vs 0)	**764.2497**	**272.9045**	**2.80**	**0.005**

Years				
2017	88.65705	16.98378	5.47	0.000
2018	146.9786	36.70525	4.06	0.000
2019	252.4606	41.66398	6.09	0.000
2020	727.4583	73.45636	9.88	0.000
2021	785.729	78.86996	10.02	0.000
2022	922.6161	98.6254	9.33	0.000
Parallel trend Test				0.0083
N.obs				46,545

Table 5: DiD and Parallel Trend test results before CEM matching

Table 6 presents the results of DiD analysis on the matched sample. The findings from the DiD analysis corroborate the results presented in *Table 5*. In particular, the treatment effect remains positive and statistically significant at 1% level, although the coefficient is lower. Specifically, it can be concluded that, on average, companies situated within a SEZ area experience an increase in fixed assets exceeding that of companies outside SEZ areas by more than €432,000.

Total Assets	***Coefficient***	***Rob. Std. error***	***t***	***P>|t|***
ATET Treatment (1 vs 0)	**432.9182**	**181.2581**	**2.39**	**0.017**
Years				
2017	63.56575	12.63387	5.03	0.000
2018	147.1461	24.60788	5.98	0.000
2019	245.0543	29.49280	8.31	0.000
2020	644.0965	58.26821	11.05	0.000
2021	747.5796	73.95162	10.11	0.000
2022	853.6472	78.90113	10.82	0.000
N.obs				44,739

This outcome demonstrates that the SEZ policy implementation has a positive and significant effect on firm behavior, resulting in increased investments in fixed assets. More broadly, it can be stated that the CEM DiD results enhance the robustness of the estimates, ensuring a more balanced comparison between treated and untreated firms and reducing the influence of potential confounding variables.

6. Policy implications and recommendations

The findings of this study highlight the relevance of the correct and efficient implementation of the SEZ policy as a tool aimed at reducing territorial gaps, empower local economies and boost the employment levels.

The evaluation of the effects of the SEZ policy introduced in 2018 would also be highly relevant for the development of the Single SEZ policy, adopted in January 2024, which extends the fiscal, economic and bureaucratic benefits to the firms of the whole Mezzogiorno area. Understanding the outcomes of the earlier policy could provide valuable insights to refine and improve the implementation of the new framework, ensuring that it effectively promotes balanced territorial development and supports a broader range of sectors. This evaluation is essential to understand whether the policy has truly benefited the territories involved. The data shows that the sectors most impacted by the policy are those related to high technology and specialization, which were already in a phase of development. Given this, it would be worthwhile to consider strategies to involve other sectors, such as the food industry, which plays a significant role in the Italian manufacturing sector.

Nonetheless, some important considerations regarding our findings must be taken into account. Previous studies have noted that the impact of SEZs on regional economies can differ significantly from one region to another, with some areas experiencing positive economic outcomes while others do not. This study offers an initial examination of the effects of SEZs, taking into account fixed effect and year effects in the DiD model, and the results are expected to become clearer and more established over time. Although our findings suggest that the effects of SEZs in Italy should be consistent across regions, it is crucial to acknowledge the potential for regional variation.

In order to take into account the possible heterogeneity of results across the involved regions, as a future development of this study we plan to perform the analysis for each one of the SEZ regions separately and to further analyzed the possible effects the introduction of the policy might have had on the employment levels.

In addition, it is important to analyze the impact not only on the firms and the sectors directly involved in the policy, but also to measure the effect of the policy on those excluded and on the neighboring areas, assessing the indirect effects.

The future steps of this research are to understand the overall effects of the policy and to investigate the impact produced by the introduction of individual SEZs, first on the economy of the Mezzogiorno, and then on each of the Southern Regions.

Due to the preliminary nature of this study, which is intended to be replicated and expanded to encompass all regions involved in the SEZ policy, the coefficient may be overestimated, as it does

not account for potential regional heterogeneity that could mitigate the estimated effect of the policy.

7. Key references

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8. Technical Appendix

Abruzzo	**Campania**	**Eastern Sicily**
Alanno	Acerra	Acireale
Arielli	Arzano	Augusta
Atessa	Atripalda	Avola
Avezzano	Avellino	Belpasso
Carsoli	Battipaglia	Caltagirone
Casoli	Bellizzi	Carlentini
Castiglione a Casauria	Benevento	Catania
Chieti	Caivano	Comiso
Cupello	Carinaro	Enna Dittaino
Fara San Martino	Casoria	Floridia
Fossacesia	Castellammare di Stabia	Francofonte
Gissi	Castellano Cisterna	Gela
Giulianova	Fisciano	Lentini
Guardiagrele	Flumeri	Melilli
Lanciano	Frattamaggiore	Messina
Manoppello	Gricignano D'Aversa	Milazzo
Montedorisio	Lacedonia	Militello Val di Catania
Mosciano Sant'Angelo	Maddaloni	Mineo
Mozzagrogna	Manocalzati	Niscemi

Oricola	Marcianise	Pachino
Ortona	Mercato san Severino	Palazzolo Acreide
Paglieta	Montefredane	Paterno'
Pescara	Napoli	Pozzallo
Poggiofiorito	Nocera Inferiore	Priolo Gargallo
Pratola Peligna	Nola	Ragusa
Raiano	Serra	Rosolini
Roseto degli Abruzzi	Pomigliano D'Arco	Scordia
San Giovanni Teatino	Principato Ultra	Siracusa
San Martino sulla Marrucina	Salerno	Solarino
San Salvo	San Marco Evangelista	Tremestieri
Scafa	Sarno	Troina
Sulmona	Teverola	Villafranca Tirrena
Vasto	Torre Annunziata	Vittoria
		Vizzini
Ionian SEZ	**Adriatic SEZ**	**Western Sicily**
Apulia	***Apulia***	Aragona-Favara
Carosino	Altamura	Calatafimi
Faggiano	Ascoli Satriano	Caltanissetta
Francavilla Fontana	Bari	Caltavuturo
Grottaglie	Barletta	Campofelice di Roccella
Manduria	Bitonto	Carini
Martina Franca	Brindisi	Cinisi
Massafra	Candela	Custonaci
Monteiasi	Cerignola	Gibellina
Mottola	Fasano	Licata porto
San Giorgio Ionico	Foggia	Marsala
Statte	Galatina	Mazara del Vallo
Taranto	Soleto	Misilmeri
Basilicata	Gravina in Puglia	Palermo
Atella	Lecce	Palma di Montechiaro
Balvano	Surbo	Partinico
Baragiano	Monte Sant'Angelo	Porto Empedocle
Ferrandina	Manfredonia	Ravanusa
Lauria	Matino	Salemi
Matera	Molfetta	Serradifalco
Melfi	Monopoli	Termini Imerese

Pisticci	Galatone	Trapani
Policoro	Nardò	
Scanzano Jonico	Ostuni	
Senise	Casarano	
Tito	Modugno	
Viggiano	***Molise***	
	Termoli	
	Campomarino	
	Larino	
	San Polo Matese	
	Campochiaro	
	Campobasso	
	Bojano	
	Pozzilli	
	Venafro	
	Carpinone	
	Pettoranello	
Sardinia	**Calabria**	
Assemini	Lamezia Terme	
Cagliari	Crotone	
Sarroch	Corigliano-Rossano	
Uta	San Ferdinando	
Oristano	Gioia Tauro	
Santa Giusta	Rosarno	
Portoscuso	Vibo Valentia	
Budduso'	Reggio Calabria	
Monti	Villa San Giovanni	
Olbia		
Alghero		
Porto Torres		
Sassari		
Tortoli'		
Elmas		

Table 6: SEZ municipalities