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Universidade de Lisboa

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ECONOMICS

MASTER´S FINAL WORK
DISSERTATION

THE ECONOMIC IMPACT OF THE MAXI TRIAL ON SICILY

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SUPERVISION:

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Contents

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Abstract

This thesis studies the economic impact of the Maxi Trial (1986–1992), the largest anti-mafia judicial process in Italian history and a key moment in the national fight against organized crime. The trial was not only a legal milestone but also a potential turning point for the Sicilian economy, which for decades had been deeply influenced by the pervasive presence of the mafia. The central question is whether such a major judicial intervention produced measurable changes in regional economic performance, and if so, how lasting or significant those changes were. To address this issue, the Synthetic Control Method (SCM) is applied. Sicily is treated as the affected unit and compared to a counterfactual constructed from a weighted mix of Italian regions not directly influenced by the trial. This approach makes it possible to estimate what Sicily's trajectory might have looked like in the absence of the event. The analysis spans the years 1980–2009 and focuses on two main indicators of development: Gross Domestic Product (GDP) and Gross Fixed Capital Formation (GFCF). The results present a mixed picture. GDP in Sicily remains slightly higher than in the synthetic control throughout the post-1986 period, but the gap narrows gradually, suggesting that any early advantage weakened over time. By contrast, investment patterns, captured by GFCF, show a modest yet more persistent upward trend, pointing to a certain improvement in business expectations and confidence in the years following the trial. Overall, the evidence indicates that the Maxi Trial did not radically transform the Sicilian economy, but it left small, visible traces. These findings highlight how judicial and institutional actions against organized crime can shape economic outcomes, even if the effects remain limited.

JEL: C21; K42; O18; R11

Keywords: Maxi Trial; Synthetic Control Method; Sicily; Organized Crime; Regional Development

1. Introduction

The Maxi Trial, held in Palermo between 1986 and 1992, marked a historical turning point in Italy's long-standing struggle against organized crime. It was the most extensive and consequential legal proceeding ever launched against Cosa Nostra, culminating in the indictment of 475 individuals and over 300 convictions. The trial introduced a radical shift in the judicial approach to organized crime: for the first time, multiple isolated crimes were not treated as disconnected episodes, but rather as coordinated actions attributable to a criminal system. It was the first judicial proceeding to formally recognize Cosa Nostra as a unified criminal organization governed by a hierarchical structure. Beyond its extraordinary legal scope, the trial had a profound symbolic and institutional impact: it marked the first large-scale application of Article 416-bis of the Italian Penal Code, which had been introduced in 1982 to criminalize mafia-type associations even in the absence of specific individual crimes. The trial also helped establish a new prosecutorial model based on the collaboration of a dedicated anti-mafia pool: for the first time investigative magistrates worked together in a structured and coordinated group, sharing case information and strategies. This approach replaced the traditional isolation of individual judges and made investigations more cohesive and effective, strengthening the justice system's ability to confront complex and organized criminal structures. Led by Judges Giovanni Falcone and Paolo Borsellino, whose investigative work revealed the systemic nature of Cosa Nostra's influence, the trial represented both a legal milestone and a moment of institutional awakening. Their work led to a strategy that connected individual crimes to a broader criminal system, helping the judiciary recognize Cosa Nostra as a structured organization: this shift changed how mafia-related crimes were understood and opened the door to stronger and more effective anti-mafia laws. The aftermath of the trial also showed how strongly it had shaken the organization: the murders of Falcone and Borsellino in 1992, through the bombings in Capaci and Via D'Amelio, were a brutal response by Cosa Nostra that underlined how seriously it had been hit.

Given the trial's magnitude and institutional implications, it is worth exploring whether it also left observable traces in the economic trajectory of the region where it took place.

This dissertation addresses that question by focusing on the case of Sicily, the region where both the criminal activity and the judicial proceedings were concentrated.

The aim is to assess whether such a significant legal intervention produced measurable economic effects, particularly in terms of growth and investment patterns, and if so, how those effects evolved over time. The analysis does not presume a unidirectional or dramatic impact, instead, it aims to understand whether there are noticeable economic differences between the real path followed by Sicily and an alternative scenario where the Maxi Trial did not occur.

To this end, the study applies the Synthetic Control Method (SCM), a counterfactual technique suited for evaluating interventions that affect a single unit over time. SCM is particularly appropriate for this case for several reasons. First, the event under consideration was unique and non-repeatable; second, there is only one treated unit (Sicily) and third, the available pre-treatment data are limited to a relatively short period (1980–1985), which makes more traditional approaches like Difference-in-Differences less reliable. By constructing a "synthetic" version of Sicily as a weighted combination of other Italian regions, SCM allows for a transparent comparison between the actual and the hypothetical, enabling us to isolate the potential economic effects of the Maxi Trial. The empirical analysis relies on regional data from ISTAT for the period 1980–2009. Two key economic indicators are examined: regional Gross Domestic Product (GDP) and Gross Fixed Capital Formation (GFCF), both transformed in logarithmic form to ensure comparability and interpretability. The core of the analysis lies in observing the gap between the real Sicily and its synthetic counterpart, focusing on how this gap behaves before, during, and after the Maxi Trial.

This study contributes to the literature by offering a data-driven assessment of an intervention that, while well documented from a legal and political perspective, has rarely been examined through the lens of economic analysis. Much of the existing research on organized crime in Italy focuses on its costs and long-term distortions, but fewer studies have explored whether decisive state action against such networks can translate into measurable improvements in regional economic performance. By analyzing a landmark case like the Maxi Trial, this work aims to offer insights into the potential role of judicial interventions in reshaping economic trajectories in contexts affected by entrenched illegality.

The dissertation is structured as follows: chapter 2 presents the literature review, discussing the main findings and gaps in the existing research on organized crime and economic outcomes; chapter 3 explains the methodology applied in this research, explaining why the SCM approach was chosen and how the dataset was built and chapter

4 presents the empirical results for both GDP and GFCF, offering interpretative insights based on the Sicilian context.

2. Literature Review

Organized crime imposes significant economic costs on societies through both direct and indirect mechanisms. These effects influence business operations, distort markets, and suppress long-term growth.

The most visible economic impact of organized crime comes from direct costs such as extortion, racketeering and corruption. For example, in Sicily, between 30–40% of businesses in certain sectors are subject to regular extortion payments, commonly referred to as a "pizzo", basically a mafia tax (Daniele and Marani, 2008). These payments take a substantial portion of revenue away from productive investments reducing profitability and forcing smaller businesses to close or move. Additionally, the mafia's infiltration into public procurement processes, especially in the construction sector, leads to inflated costs and reduced quality in public works projects. Ferrante et al., 2019 show that public construction projects in mafia-controlled regions cost 20–30% more than those in areas free from organized crime, with significant portions of these funds redirected to the criminal organization.

Regional economies are also indirectly affected by organized crime for example by reducing foreign direct investment (FDI) and contributing to economic stagnation. Investors often perceive regions with high levels of organized crime as high-risk environments, deterring capital inflows. According to Daniele and Marani (2008), southern Italian regions heavily influenced by mafia activity attract only 5% of Italy's total FDI, despite representing over 30% of the population.

Another indirect cost is the distortion of market competition: in the construction industry, for example, criminal organizations dominate local markets reducing competition. Ferrante et al. (2019) found that in Sicily and other mafia-dominated areas, criminal groups exert control over public tenders, limiting the number of firms that can compete for contracts and this phenomenon creates a situation where a small group of companies linked to organized crime secures the majority of public contracts. As a result, project prices are much higher, quality suffers, and innovation is blocked. For instance, in regions where mafia has a great influence, 50% more contracts are monopolized compared to regions without mafia influence.

The long-term presence of organized crime imposes significant macroeconomic challenges, including lower productivity, suppressed innovation, and misallocation of resources. Businesses in mafia-dominated regions often adopt risk-averse strategies, avoiding innovative or growth-oriented activities to minimize criminal attention. Mocetti and Rizzica (2021) found that productivity in southern Italian regions is approximately 20% lower than the national average, mainly because resources are wasted on protection or bribes, which reduces fair competition among businesses. Moreover, they also estimated that GDP growth in mafia-dominated provinces is 16% lower over a 30-year period compared to regions with minimal mafia activity. This estimate takes into account not only direct losses from extortion and racketeering but also the indirect effects of reduced investment, weaker entrepreneurship, and a general stagnation in key sectors of the economy.

Organized crime also misallocates resources, diverting them from productive uses toward protection payments and bribery. This redirection of economic activity reduces the overall output and limits long-term growth potential. Blackburn et al. (2017) argue that the combination of corruption and organized crime creates a cycle of inefficiency, where firms prioritize survival over expansion or innovation. Moreover, criminal organizations damage institutional trust, which is critical for fostering economic development: by undermining public confidence in the rule of law, they reduce the willingness of businesses and investors to engage with state institutions, further weakening regional economies.

Organized crime's economic impact extends beyond Italy, with similar phenomena observed in other regions such as Mexico. Mexican drug cartels, like Cosa Nostra, impose significant costs on local economies, but their methods and focus are different. While the Sicilian mafia often infiltrates legal markets, Mexican cartels primarily derive income from the drug trade and resort to widespread violence to maintain control. Research by Robles et al. (2013) highlights that drug trafficking related to violence in Mexico has severe economic consequences, more specifically, when violence surpasses a certain limit it disrupts local economies, reducing labour force participation and employment. Electricity consumption is used as an index for economic activity and in highly affected cities this index reduced significantly following peaks in violence, reflecting a contraction in local economic activity. Furthermore, costs of protection and security forced businesses to invest resources away from productive capital spending, worsening economic stagnation. This comparison highlights the global economic cost of organized

crime, showing how both Mexican cartels and Cosa Nostra negatively influence regional economies, through different mechanisms: Mexican cartels rely heavily on violent enforcement and disruption, while the Sicilian mafia often seeks to establish long-term control over legal and illegal markets.

A major anti-crime policy implemented in Mexico has been the Kingpin Strategy, designed to dismantle drug cartels by eliminating their top leadership. While intended to weaken criminal organizations, research suggests that this approach has often increased violence rather than reducing it, as the removal of cartel leaders frequently leads to internal fragmentation, sparking violent power struggles among rival factions (Guerrero-Gutiérrez, 2011). This, in turn, generates further economic instability, as uncertainty discourages business investments and disrupts market activity, which means that many businesses are forced to relocate or shut down. As a result, rather than strengthening economic conditions, the Kingpin Strategy has contributed to prolonged downturns in already fragile regions.

The Maxi Trial, held in Palermo from 1986 to 1992, was a pivotal moment in the fight against Cosa Nostra. While its economic effects remain an area of study, its legal significance is evident. One of its most important outcomes was the introduction of Article 416-bis of the Italian Penal Code, which allowed authorities to arrest individuals simply for being part of a criminal organization, even without proving their involvement in specific crimes (Scotti, 2002). This marked a shift in how the Italian legal system addressed organized crime, making it possible to target the core structure of criminal groups rather than focusing only on individual offenses. The trial also demonstrated the power of using insider testimony, as turncoats like Tommaso Buscetta provided critical information that helped the authorities understand mafia hierarchies. This reliance on "pentiti" became a key tool in later anti-mafia efforts (Jacobs et al., 1994).

The United States took a different approach with the Racketeer Influenced and Corrupt Organizations Act (RICO), in 1970. Although it shares some similarities with Article 416-bis in its goal of breaking down criminal networks, RICO introduced stronger financial measures to weaken criminal organizations. One of its most effective tools has been asset confiscation, which allows authorities to confiscate money and property linked to illegal activities (Jacobs et al., 1994). Unlike traditional prosecutions, which focus on imprisoning individuals, RICO targets the financial foundations of organized crime, making it harder for these groups to continue operating. Studies show that RICO cases have led to significant financial losses for criminal organizations, with millions of dollars

in assets expropriated and reinvested into law enforcement efforts (Shaub, 1988). In particular, the law has been used extensively in sectors where organized crime was deeply rooted, such as construction, waste management and gambling (Cabán, 2018).

The economic impact of RICO has been notable: in areas where RICO prosecutions were strongly implemented, local economies saw increased business competition and reduced corruption. Studies indicate that regions affected by RICO cases experienced a faster recovery in economic activity, as confiscated assets were redirected toward public projects and social programs (Bosworth & Collins, 2007). This helped restore fair competition by eliminating mafia-controlled businesses that previously had an unfair advantage through intimidation and corruption.

Analysing the legal and economic outcomes of RICO can offer valuable perspectives when studying the fight against organized crime. While the historical and structural differences between the U.S. and Italian cases are significant, both legal frameworks share the goal of breaking down criminal organizations by weakening their foundations rather than just prosecuting individuals for specific crimes. Understanding the consequences of RICO's financial measures can be particularly useful, as they highlight the long-term effects of disrupting organized crime's economic power. The experience in the U.S. shows how combining strong legal frameworks with financial strategies can help reduce the influence of criminal organizations and create more stable economic conditions in affected regions.

While the Maxi Trial has been extensively studied for its legal and social implications, there is a gap in the literature regarding its long-term economic effects on Sicily. Many studies have focused on the judicial innovations introduced by the trial, especially the implementation of Article 416-bis of the Italian Penal Code, which strengthened legal tools against organized crime (Scotti, 2002). However, these works have primarily concentrated on legal outcomes and institutional changes, overlooking the economic dimension.

Another stream of literature has examined the economic impact of Cosa Nostra on the Sicilian economy. Several studies highlight how the mafia's involvement in extortion, public procurement, and corruption has undermined market competition, reduced foreign direct investment (FDI), and distorted local labour markets (Daniele and Marani, 2008; Ferrante et al., 2019). These analyses provide valuable insights into the economic costs imposed by organized crime but focus on the influence of Cosa Nostra rather than the effects of anti-mafia interventions like the Maxi Trial.

The literature also explores anti-crime strategies in other countries, offering useful comparisons. In the United States, the RICO Act has been widely studied for its impact on breaking down criminal organizations through financial sanctions and asset confiscation (Jacobs et al., 1994). Similarly, in Mexico, the Kingpin Strategy aimed to disrupt drug cartels by targeting their leadership, though this approach often resulted in increased violence and economic instability (Robles et al., 2013). While these studies shed light on the broader economic consequences of anti-crime policies, they focus on contexts that differ significantly from the Italian experience.

This research aims to fill a critical gap in the literature by providing a quantitative analysis of the Maxi Trial's economic impact on Sicily.

3. Empirical Approach

This chapter outlines the methodological framework adopted to assess the potential economic impact of the Maxi Trial on the Sicilian region. The Maxi Trial, conducted between 1986 and 1992, represented a historical turning point in the fight against organized crime in Italy. Its scale and symbolic weight were unprecedented, and this research aims to explore whether such an event left measurable traces on the economic trajectory of Sicily. To do so, we apply a counterfactual method that enables us to simulate how Sicily might have evolved in the absence of the trial. This comparison allows for a data-driven estimation of the trial's impact on key economic variables, namely regional GDP and Gross Fixed Capital Formation (GFCF).

The technique adopted in this study is the Synthetic Control Method (SCM), a causal inference approach designed for situations where only one unit (e.g., a region or country) is exposed to a treatment, such as a policy change, a major event, or, in this case, a judicial process. SCM constructs a "synthetic" version of the treated unit by combining a weighted average of similar but untreated units from a donor pool. These weights are selected in such a way that the synthetic unit closely reproduces the pre-treatment behavior of the treated unit in terms of both outcome variables and predictors.

Once a good pre-treatment match is achieved, any significant divergence between the treated unit and its synthetic counterpart in the post-treatment period can be interpreted as the estimated effect of the treatment. The key strength of this method is that it allows to construct a transparent and data-driven counterfactual that can be evaluated both visually and statistically.

Unlike Difference-in-Differences (DID), which assumes that the treated and control groups follow parallel trends before the treatment, SCM makes no such assumption. Instead, it ensures similarity by construction, using optimized weights. This feature is particularly useful in cases where only a few years of pre-treatment data are available: in our case, since the available data start in 1980 and the Maxi Trial began in 1986, the pre-treatment period is relatively short. This makes DID less reliable, as testing for trend parallelism over six years is problematic, while SCM, by contrast, can build a credible counterfactual even in such limited windows.

Given the unique nature of the Maxi Trial and the lack of comparable events in other regions, standard econometric techniques like DID were not suitable. The SCM, by design, is tailored for single-treatment case studies like this one. Our goal was to simulate a Sicily that was not affected by the Maxi Trial and to compare it with the real economic data, more precisely the synthetic version is not built from a single region but from a carefully weighted combination of multiple Italian regions that share economic characteristics with Sicily. This method improves the robustness and interpretability of our results.

The SCM is also a good choice when the treatment is unique and limited to a specific region, as is the case here, in addition it provides clear visual and numerical outputs, like graphs and accuracy indicators, which help assess how well the method works.

The analysis covers the period from 1980 to 2009 and relies on economic data provided by the Italian National Institute of Statistics (ISTAT). These data come from two distinct sources that needed to be harmonized to ensure comparability.

The first source includes printed statistical publications collected from ISTAT's archives in Rome. These documents cover the years 1980 to 1995 and report values in billions of lire at current prices (1998 edition). The second source is ISTAT's official online database (2012 edition), which provides data from 1995 onward in millions of euros at current prices.

To bring these datasets onto the same scale, a two-step harmonization process was adopted. First, the data from printed publications in billions of lire were converted into millions of euros. This required multiplying by 1000 to switch from billions to millions and then dividing by 1936.27 (the fixed conversion rate from lire to euros established at the time of the euro's adoption). The mathematical formula used for this conversion is as follows:

$$Millions\ of\ Euros\ =\ Billions\ of\ Lire\ \times\ 1000\ \div\ 1936.27$$

Second, to align the two datasets conceptually and ensure consistency across time, a harmonization coefficient was calculated for each variable and region. This was possible because 1995 is the only year for which both printed and online ISTAT data are available: after converting the 1995 printed value into millions of euros, the ratio between the online value and the converted printed value was computed and successively this ratio was applied to all printed data from 1980 to 1994.

In this way, the final dataset contains consistent and comparable figures for the entire 1980–2009 period, all expressed in millions of euros at current prices. While regarding the value for 1995 itself, it was taken directly from the online ISTAT database, as all previous years had already been harmonized to align with this source.

The analysis includes two key outcome variables and three control variables, each chosen for its relevance in capturing the economic dynamics of the Sicilian region. The first dependent variable is Regional GDP (Gross Domestic Product), which serves as a broad indicator of regional economic performance by measuring the total value of goods and services produced within the region. The second outcome variable is Gross Fixed Capital Formation (GFCF), which acts as a proxy for the investment climate and the attractiveness of the territory since it captures both public and private investment in infrastructure, machinery, and buildings and also reflects long-term confidence and the perceived level of trust in the region's economic environment.

The control variables include employee income, which reflects overall earnings from dependent employment and provides insight into labor market conditions and household purchasing power; final consumption per capita, which indicates average household spending and helps assess living standards and domestic demand; and total labor units, which measures the total volume of labor used in the economy and serves as a proxy for labor market size and employment intensity.

All variables were transformed using natural logarithms to stabilize variance, improve linearity, and enable interpretation in percentage terms. This transformation also enhances the performance of the SCM, which depends on minimizing differences across units in the predictor space. Including these control variables helps make the synthetic version of Sicily more similar to the real one before the event, making any difference after the event more likely to be due to the Maxi Trial and not to other unrelated factors.

The treated unit in our study is the region of Sicily: the SCM compares Sicily's actual economic trajectory to that of a synthetic counterpart constructed from a weighted combination of other Italian regions. The pre-treatment period was defined as 1980–1985, and the post-treatment period begins in 1993, the year that marks the beginning of the post-event period following the conclusion of the Maxi Trial in 1992. The model was applied separately for each of the two outcome variables (GDP and GFCF), more precisely, in each case the algorithm selected optimal weights for the donor regions in order to match Sicily's pre-treatment profile as closely as possible, both in terms of outcome trends and control variables. The divergence between real and synthetic Sicily after 1992 is interpreted as the estimated effect of the Maxi Trial.

The donor pool includes the following Italian regions: Campania, Calabria, Puglia, Basilicata, Abruzzo, Sardinia, Lazio, and Tuscany. These regions were selected because they offer a complete dataset for the entire period and share certain socio-economic traits with Sicily, such as lower levels of industrialization and higher unemployment rates, which are some widespread characteristics of the Southern regions of Italy. Tuscany was included despite its central location, due to its economic structure and scale, which are very similar to Sicily's. Using this mix of regions allowed the synthetic model to optimize the match quality.

The same donor pool was used for both outcome variables, however the weights assigned to each region varied depending on the variable being modelled. This reflects the fact that different regions may resemble Sicily more closely in terms of GDP than in terms of investment behaviour, or vice versa.

The SCM model was implemented using the Stata software and the key metric used to evaluate the goodness of fit in the pre-treatment period was the Root Mean Square Prediction Error (RMSPE). A lower RMSPE indicates a closer alignment between the actual and synthetic series before the treatment, enhancing the credibility of the counterfactual.

In our application, both GDP and GFCF models achieved low RMSPE values in the pre-treatment window, showing that the synthetic controls can be considered a solid point of reference for understanding the possible impact of the Maxi Trial.

4. Empirical Analysis

This chapter presents the empirical results of the synthetic control method (SCM) applied to assess the economic impact of the Maxi Trial on Sicily. The analysis focuses

on two key indicators: Gross Domestic Product (GDP) and Gross Fixed Capital Formation (GFCF), both log-transformed. The goal is to evaluate whether there is a measurable deviation between the actual economic trajectory of Sicily and a synthetic counterfactual built using data from other Italian regions. The SCM was applied separately for each variable, and the results are presented accordingly.

To construct the synthetic control for Sicily, a donor pool was created using data from other Italian regions. The selection aimed to include regions with comparable economic structures and development levels. Most of the selected regions belong to Southern Italy, which tends to share several socio-economic features with Sicily, such as lower industrialization, similar labour market dynamics, and reduced investment levels compared to the North. These regions are considered suitable references for building a realistic counterfactual.

Additionally, Tuscany was included among the donor regions: despite being geographically located in Central Italy, Tuscany was selected because of its economic structure and scale, which are relatively close to those of Sicily. Its inclusion helped improve the quality of the synthetic match.

The same donor pool was used for both outcome variables (log GDP and log GFCF). However, the synthetic control algorithm assigned different weights to the regions depending on the variable being analyzed. This means that, while the base of potential donor regions remained constant, the actual construction of synthetic Sicily varied between the two analyses. For example, certain regions received higher weights in the synthetic GDP model, while others were more influential in the GFCF reconstruction. This distinction reflects how different regions may resemble Sicily more closely depending on the economic dimension under consideration.

The table below lists the regions that were considered in the construction of the synthetic control for each variable and the weights reflect the relative contribution of each region to the synthetic counterpart.

Figure 1 synthetic Sicily: coefficients of Italian regions for GDP

Unit Weights:

Co_No	Unit_Weight
Abruzzo	.164
Basilicata	0
Calabria	0
Campania	.538
Lazio	0
Apulia	0
Sardinia	0
Tuscany	.298

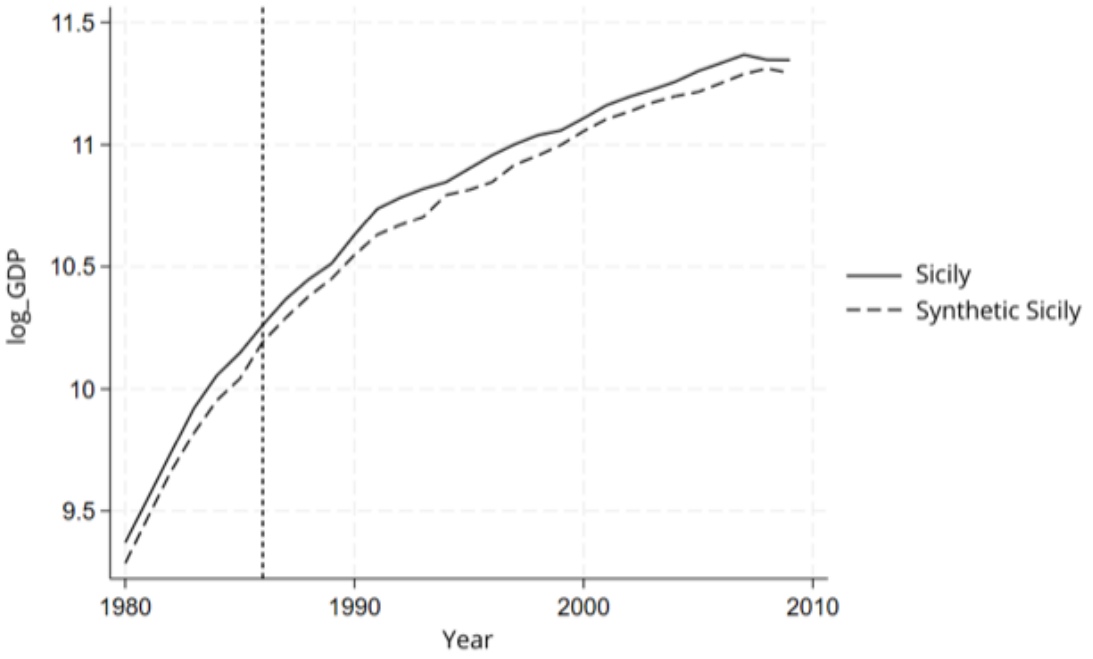
Figure 2 synthetic Sicily: coefficients of Italian regions for GFCF

Unit Weights:

Co_No	Unit_Weight
Abruzzo	.172
Basilicata	0
Calabria	0
Campania	.63
Lazio	0
Apulia	0
Sardinia	0
Tuscany	.198

The first step in evaluating the validity of the SCM is to assess how closely the synthetic Sicily tracks the real one before the treatment period, which starts in 1986. The pre-treatment fit for GDP shows a high degree of similarity between the actual and synthetic trajectories.

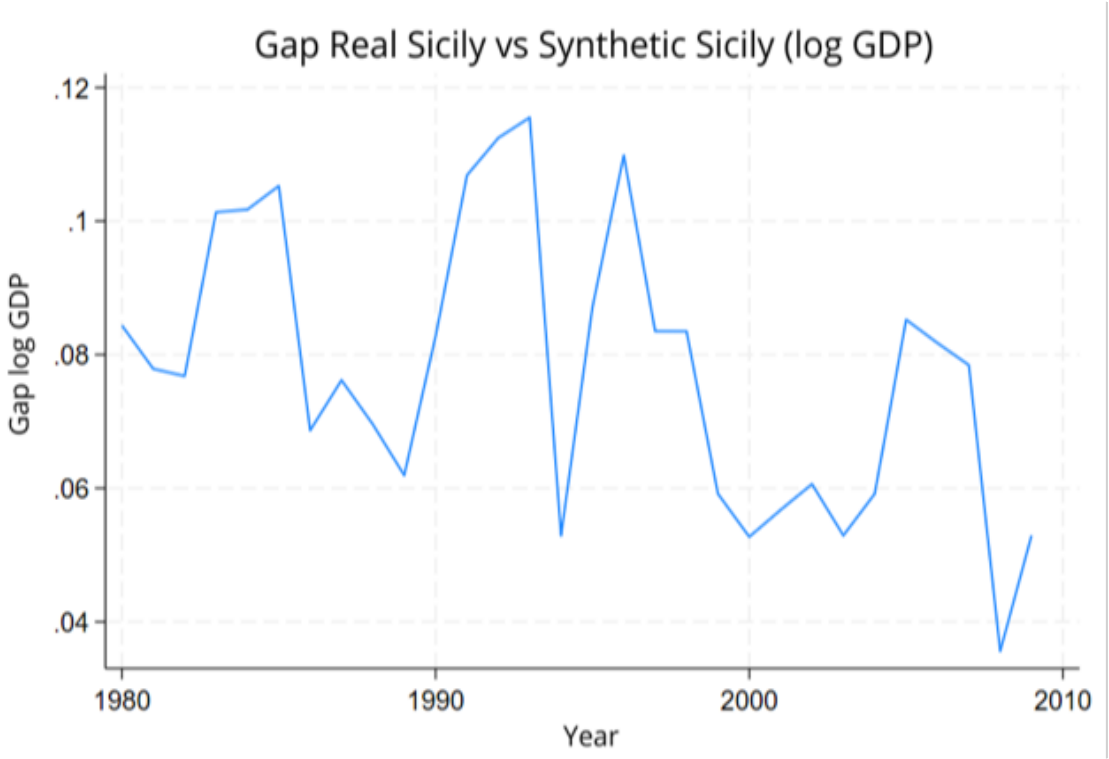
Figure 3 real Sicily vs synthetic Sicily GDP



The synthetic control method offers a reliable counterfactual for Sicily's GDP trend, showing a close fit in the years before the treatment and a positive gap that remains throughout the full observation period. The quality of the synthetic control is confirmed by the pre-treatment Root Mean Squared Prediction Error (RMSPE), which is equal to 0.09234 and is an acceptable level that supports the model's ability to replicate the actual trajectory of Sicily before the beginning of the Maxi Trial. However, a more detailed look at how this gap changes over time reveals some interesting dynamics.

Looking at the overall picture, actual Sicily always stays above its synthetic counterpart. This pattern holds from 1980 to 2009 and is clearly visible in the comparison between the two series. The synthetic Sicily never surpasses the real one. Therefore, the key element to examine is not the absolute GDP level, but how the relative distance between the two series evolves across the years.

Figure 4 Gap between GDP real Sicily and synthetic Sicily

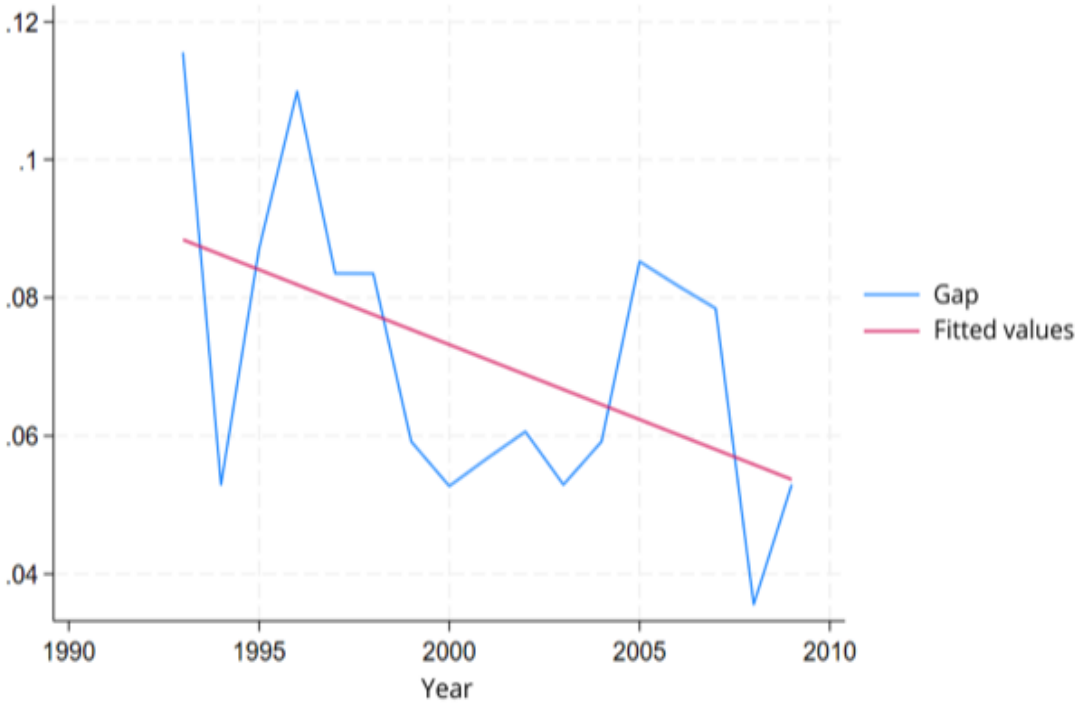


In the early 1980s, before the Maxi Trial began, the average gap was around 0.091. It then slightly decreased to 0.083 during the years of the trial (1986–1992) and dropped to 0.071 in the post-trial period (1993–2009). While these differences are not large, they are consistent and observable. The linear trend from 1993 onward confirms this slow and steady convergence.

The average value of the gap is calculated for three periods:

- Pre-treatment (1980–1985): 0.091234
- During the Maxi Trial (1986–1992): 0.082641
- Post-treatment (1993–2009): 0.07105

Figure 5 Trend of Gap between GDP of real Sicily and synthetic Sicily



This trend suggests that although Sicily remained ahead of the synthetic version, it did so with decreasing momentum. In other words, the synthetic Sicily, which represents a version of the region without the Maxi Trial, grew slightly faster over time. The two series did not cross, but they clearly moved closer together.

Before discussing possible interpretations, it is important to acknowledge that the variation in the gap is relatively small. These are not dramatic shifts indicating structural transformation. As such, any interpretation should remain proportionate and cautious, as we are dealing with signals rather than definitive outcomes.

One possible explanation relates to the nature of the Maxi Trial itself: it represented a major turning point in the legal battle against organized crime, attracting nationwide attention and producing long-lasting changes in the justice system. Despite the trial's scale and symbolic power, its economic impact in terms of GDP growth does not point in a clear direction. A likely reason is that the criminal organization's economic structure was not completely dismantled: the hierarchy was damaged, but the group adapted and managed to preserve much of its influence over key sectors. In other words the Maxi Trial disrupted operations but did not eliminate them entirely allowing many revenue-generating activities to continue in altered forms. As a result, regional growth did not accelerate significantly in the following years.

Interestingly, the gap shows two noticeable peaks just after the conclusion of the trial: one around 1993 and another close to 1997. These years correspond to a particularly unstable phase for the criminal organization, following the final convictions and the shock generated by the Capaci and Via D'Amelio bombings. Judges Giovanni Falcone and Paolo Borsellino, who had led the investigations that laid the foundation for the Maxi Trial, were assassinated in 1992. These attacks were not only a direct assault on the state, but also a reaction to the organization's weakening position following the Maxi Trial, which had seriously undermined its leadership and operational capacity. This marked a moment of internal fragmentation and uncertainty for the criminal organization This temporary phase of instability may have reduced the organization's ability to interfere with economic activity, at least in part. In the immediate aftermath of the Maxi Trial and the 1992 assassinations, the weakened criminal structure may have struggled to maintain control over key sectors of the local economy. As a result, certain areas of the Sicilian economy might have operated with fewer distortions or informal pressures, allowing for a brief period of more dynamic growth. This could help explain the two positive peaks in the gap observed around 1993 and 1997, which appear as short-lived episodes before the region returned to a slower and more regular convergence path.

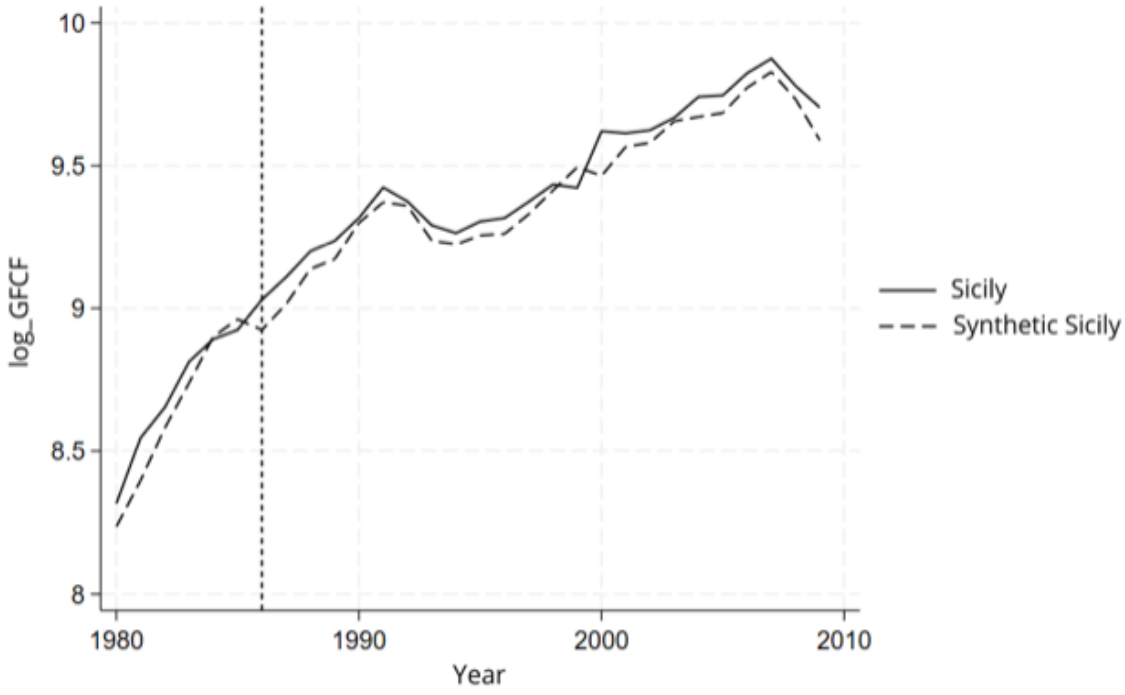
Another interpretation considers the nature of GDP itself. In regions where organized crime is deeply rooted, a portion of GDP may derive from legal businesses used for money laundering. Reports by Libera and the Direzione Investigativa Antimafia (DIA) estimate that over 60% of illicit profits are reinvested in sectors such as construction, retail, tourism, logistics, and energy. These businesses, although formally legal, are often controlled or influenced by criminal actors and contribute directly to GDP figures. After the Maxi Trial, many of these businesses were investigated, closed, or confiscated by the authorities. While these measures were clearly necessary from a legal standpoint, they may have also reduced GDP by removing a stream of capital that previously passed through formal channels. In this light, the shrinking gap might reflect the loss of economic activity that had previously been supported, at least partially, by criminal investments.

All things considered, the Maxi Trial marked a fundamental shift in Italy's legal approach to organized crime. Nevertheless, based on the GDP evidence alone, it is difficult to identify a significant economic acceleration, since Sicily remained above its synthetic benchmark, yet the difference gradually narrowed over time. Whether this was due to the organization's ability to recover, or to the reduction of criminally linked output within official statistics, the available data suggest only a modest economic divergence.

That said, the trial may have contributed to broader institutional improvements, whose long-term effects may be more visible in dimensions other than GDP.

The analysis of fixed capital formation (GFCF) offers a complementary perspective to the GDP results and helps capture potential investment dynamics following the Maxi Trial. As with the previous variable, the synthetic control method produced a reliable comparison unit, with a strong alignment between real and synthetic Sicily in the pre-treatment years. The Root Mean Squared Prediction Error (RMSPE) for the pre-treatment period is 0.08277, indicating a good fit and supporting the credibility of the counterfactual.

Figure 6 real Sicily vs synthetic Sicily GFCF



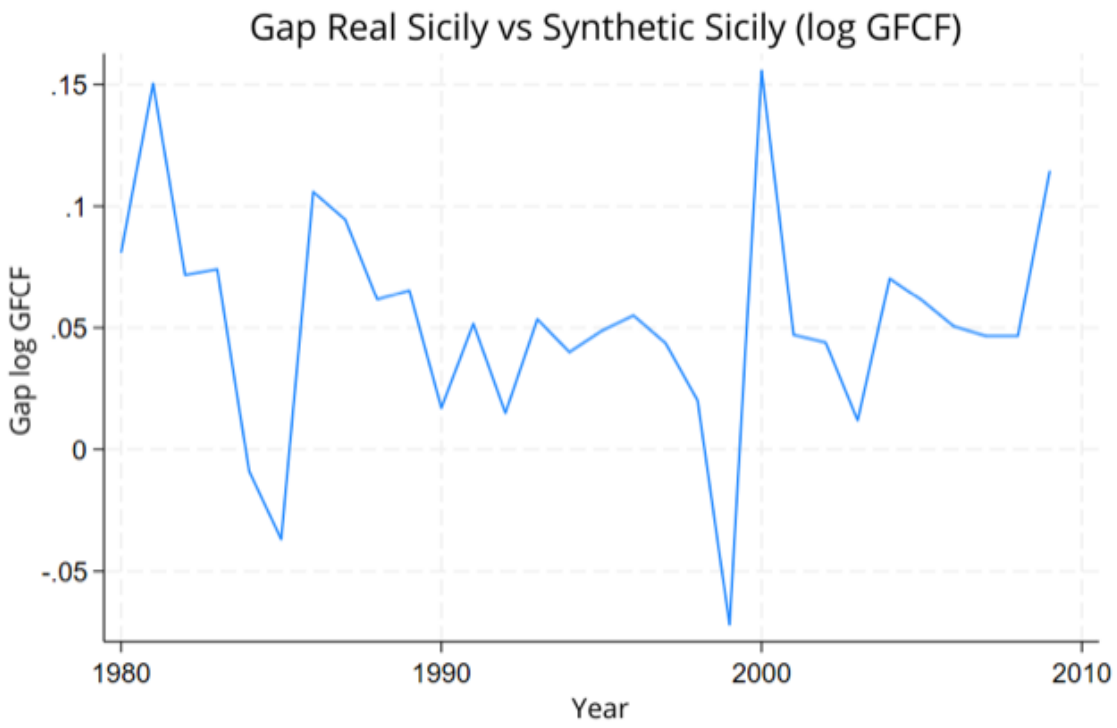
Looking at the average gap values, we observe a relatively stable pattern. During the pre-trial period (1980–1985), the average gap was 0.055. This value increased slightly during the trial years (1986–1992), reaching 0.059, and then decreased to 0.049 in the post-trial period (1993–2009). These differences are minimal, yet they suggest that, on average, investment grew somewhat more in the synthetic Sicily after the Maxi Trial than in the actual region. In other words, the real Sicily did not experience an acceleration in fixed capital formation following the trial. This outcome may reflect structural constraints, persistent uncertainty, or insufficient institutional transformation to create an attractive investment environment in the short to medium term.

Average gap values:

- Pre-treatment (1980–1985): 0.055224
- During the Maxi Trial (1986–1992): 0.058755
- Post-treatment (1993–2009): 0.049292

However, if we shift the focus from static averages to the trajectory over time, a more nuanced picture emerges. The graph displaying the year-by-year gap reveals considerable volatility, with sharp declines around the late 1990s and an equally marked recovery in the early 2000s. These fluctuations indicate that investment in Sicily was not following a smooth path, possibly due to external shocks, changes in public funding flows, or irregularities in administrative capacity. Despite this instability, the general direction of the post-treatment period deserves attention.

Figure 7 Gap between GFCF real Sicily and synthetic Sicily



Indeed, the estimated trend of the post-treatment gap shows a mild upward slope. Although the gap remained modest in absolute terms, its gradual increase over time suggests that, after a period of adjustment and stagnation, real Sicily began to recover and possibly outpace its synthetic counterpart in attracting investment. This could be interpreted as a delayed positive signal, reflecting the slow restoration of investor confidence.

Figure 8 Trend of Gap between GFCF of real Sicily and synthetic Sicily

One plausible explanation for this late improvement lies in the role of institutional trust. Investor confidence in a region is often a key driver of capital accumulation, particularly for long-term and infrastructure-related investments such as those captured by GFCF. In environments with a high presence of organized crime, market dynamics are typically distorted. Investors face non-competitive conditions, opaque procurement procedures, and elevated risks related to extortion. Under such circumstances, the incentive to invest or innovate is weakened, not just for private entrepreneurs but also for public institutions allocating capital expenditures. The Maxi Trial, by formally acknowledging and prosecuting the systemic nature of Cosa Nostra's control, may have contributed to gradually restoring credibility in local governance. Although this transformation was far from immediate, it might have opened space for more legitimate investment processes to emerge over time.

However, the observed improvement remains modest and unstable. The strong fluctuations in the gap signal that structural challenges persisted throughout the post-trial period. Moreover, given the complexity of Sicily's political economy, the slight upward trend should not be overinterpreted. It is unlikely that the Maxi Trial alone explains the recovery in investment; other factors may have contributed to this change.

In conclusion, the GFCF data do not reveal a decisive shift in Sicily's investment trajectory after the Maxi Trial. The absence of a clear break in the average values points to a limited immediate effect, while the slightly increasing trend suggests a possible long-

term adjustment. Overall, the interpretation should remain cautious: the trial might have helped remove some distortive barriers, but broader institutional and economic conditions were likely needed to generate sustained investment growth.

5. Conclusions and policy implications

This dissertation aimed to understand whether the Maxi Trial, a major legal turning point in Italy's fight against organized crime, left measurable traces in the economic trajectory of Sicily. By applying the Synthetic Control Method, the analysis compared Sicily's actual path to that of a counterfactual version constructed from a weighted combination of other Italian regions. The study focused on two economic indicators: regional GDP and Gross Fixed Capital Formation, to assess both overall economic performance and investment trends over the period 1980 to 2009.

The results offer a nuanced picture. Regarding GDP, Sicily consistently outperformed its synthetic counterpart, maintaining a positive gap throughout the observed period. However, this gap narrowed over time, suggesting that while the region remained economically ahead, it did so with a gradually slowing pace. In contrast, the GFCF results revealed a lower average gap in the post-treatment period, yet the trend showed gradual improvement, particularly in the years following the conclusion of the trial: this could indicate a modest recovery in investor confidence as the judicial response to organized crime gained visibility and credibility.

These findings suggest that the economic impact of the Maxi Trial, while not dramatic, was not entirely insignificant either. The differences observed are relatively small in magnitude, but they still reflect the presence of mild economic reactions to the broader judicial context, even if they did not lead to major economic shifts. The trial likely disrupted certain segments of the criminal economy, especially in the period right after the trial, but the overall structure of Cosa Nostra proved resilient. In fact, the gradual convergence in GDP and the initially weak investment performance may reflect a complex dynamic: even though the state stepped up its fight against organized crime, some parts of the informal economy connected to criminal networks may have continued to operate or adjusted to the new conditions.

The contribution of this research lies in showing that events typically examined through legal, political, or historical lenses can also be approached through economic analysis. Using counterfactual tools like SCM, it is possible to assess whether and how judicial interventions shape regional development. This kind of analysis is particularly

relevant for countries or regions marked by persistent illegality, where looking at how government actions affect the economy can help shape better policies.

Naturally, the findings must be interpreted with caution. The study is limited by data availability and by the methodological constraints of the SCM approach. The analysis focuses on two macroeconomic indicators, which are meaningful, but cannot capture the full range of socio-economic effects triggered by such a complex event. If a judicial event of similar scale were to occur today, future research would likely benefit from the availability of more comprehensive and longer-term data. Unlike the period examined in this study, where data were limited and required substantial harmonization, current statistical resources would allow for a more detailed and robust analysis of economic impacts over time.

In conclusion, the Maxi Trial was a defining moment in the institutional history of Italy, and its broader consequences had an impact on the country's society and economy. While the economic signals identified in this study are modest, they point to the broader potential of empirical methods to explore how legal actions and economic development are connected. Recognizing this connection can be especially valuable for regions seeking to break free from the long-term grip of criminal influence.

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