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Introduction

The subdivision of Italy into regions, provinces, and municipalities has long been justified by the necessity of the Italian Government to exercise a much more efficient control over the entire State. But one obvious question arises: has this administrative system based on a substantial decentralization of power and resources always led to the desired results? Needless to say, several issues have been undermining the ability of local entities to safely act in conformity to the Italian Law and to behave fairly in the management of public resources. Thanks to novel information and data on local public finances in the Italian context, we have all the ingredients to answer the question of whether Government interventions on municipalities characterized by financial imbalances have been effective and efficient in restoring the public finances at a local level. The reminder of the dissertation is as follows : Section 1 will introduce the existing literature on the topic of interest along with a general outlook. Section 2 will present an explanation of the steps involving the identification of financially unstable municipalities and the related adopted procedures. Section 3 will outline the different cases of financially unhealthy municipalities along with the assessment of such conditions, and the reaction of the Italian government. For the sake of fairness, a synthetic reference to the international framework will be included, as to provide for a wider perspective of how different countries deal with the problem. Section 4 will develop a detailed analysis on some descriptive statistics related to local governments unergoing financial difficulties. Finally, Section 5 will develop a new case-study related to the degree of affection of local public finances by financial distress procedures. Section 5 will be structured as follows : first there will be a precise description of the data, followed by intense description of the methodology adopted throughout the empirical analysis. After the identification of the model, results will be presented and commented upon.

By relying on the literature referred to the topic in question, the research will consider local municipalities from the regions that have been identified as those where the rate of financial distress is the highest, namely in the regions of Apulia, Basil-

icata, Calabria, Campania, and Sicily. These regions will, therefore, compose the sample for the experiment. For what concerns the period of interest, I will focus on the same time-window proposed by Di Cataldo and Mastrorocco (2020) in their research paper : *Organised crime captured politicians, and the allocation of public resources*, (2020), that is a time period ranging between 1998 and 2018. The dataset will be be structured in panel form, hence observing the evolution of the same outcome variables over the selected time frame for all available local municipality in the aforementioned regions. Data on local public finances will be taken from the database of the "Italian Ministry of Financial Statement Certificates (Certificati Consuntivi) data source, which includes relevant statistics for several spending categories. The methodology was built after careful revision of the different quantitative approaches proposed by Acconcia, A., G. Corsetti and S. Simonelli, in *Mafia and Public Spending: Evidence on the Fiscal Multiplier from a Quasi-experiment* (2014), by Daniele, G. and B. Geys in *Organised Crime, Institutions and Political Quality: Empirical Evidence from Italian Municipalities* (2015), and in *Organised Crime, Institutions and Political Quality: Empirical Evidence from Italian Municipalities* (2011), by Daniele, V. and U. Marani. Then, the realities that were subject to the enforcement of the Decree of Laws 66/1989 and 174/2012 will be grouped together. The interpreration of results will be aimed at comparing two different periods :

1. the period preceeding either the declaration of financial distress, or the activation of a Long-Term Restructuring Procedure[1];

2. the period in which a municipality is treated as either financially distressed or in a restructuring phase.

Such a comparison will be useful to address both research questions mentioned above, and also the question hidden in the title reading as :"Are restructuring programs effective and efficient in restoring the public finances of a municipality that underwent financial distress or a rebalancing plan?. Not surprisingly, a possible

[1]Throughout the dissertation, I will be referring to Long-Term Restructuring Procedures as : L-T Programmes, Long-Term Restructuring Programmes, Multi-year Rebalancing Plans, Rebalancing Plans

outcome for my research can already be forecasted, and it will indeed be treated as a starting statement : one might expect to observe a decrease in the some specific spending categories of local public finances (ie.e., current spending account) of a financially destabilized municipality over time, as the entity should be facing the issue of getting back to the "original equilibrium". Moreover, as it was just quoted, this decline in some categories of local public finance would come with no surprise, but are they temporary or permanent reductions? Section 5 will try to provide an answer to all these questions.

1 Literature review

The research field on italian local public finances has gained special interest in the last decades, particularty after several legal provisions were undertaken to accurately monitor municipalities. In addition to its relative "freshness" [2], the topic is also closely related to a specific country (Italy), so it was no surprise for me to find relatively poor discussions on the matter. Moreover, understanding the relationship between the administration of local public finances and the cases of financial distress or Long-Term Restructuring Programme[3] is even more of a "niche" topic. However, despite these limitations, there are quite a few references that dwell on the subject matter, or on some of its related features. Among the most relevant pieces of evidence for my research, the book *Rapporto Ca' Foscari sui comuni italiani (2020)*, whose author is Prof. Stefano Campostrini, stands out as the most important one. This book is actually an annual report released by the University of Cà Foscari that combines several papers and publications on the socio-economic and financial condition of all italian municipalities. By focusing solely on municipalities where local administrations either declared financial difficulties or that were subject to restructuring plans, this book provides a complete and detailed overview on the reasons why several italian municipalities have reached certain conditions of financial

[2]The oldest papers on financial distress do not date back prior to the 80s
[3]That is the objective of my research

imbalances. *Il dissesto finanziario negli enti locali alla vigilia dei Decreti Legislativi n. 149/2010 e n. 174/2013. Analisi del fenomeno italiano.*, Falilò (2013), counts as another interesting reference, thus contributing to the discussion. In his research, the author proposes an analysis of the phenomenon of financial distress in the italian municipalities by making reference to the entry into force of the "Italian legislation on the Financial Distress of Public Authorities" (1989) and to the amendment of "Titolo V" of the Italian Constitution (2001)[4]. With respect to the publication date of the paper, more than twenty years had passed since its entry into force, and the research wondered whether the coercive power of the law on pushing entities to file for bankruptcy had increased over time. Moreover, the author pushes the research forward by questioning whether it is possible to outline the peculiar characteristics of a typical local administration that is undergoing financial distress. In conclusion, this paper carries the reader through the different perspectives taken by local administrations when approaching a financial distress situation.

Though with a different perspective, also Di Cataldo and Mastrorocco's *Organised crime, captured politicians, and the allocation of public resources*, (2020) can be considered as a potential piece of evidence on the matter. In their work, they showed the existence of a statistically significant interdependence between situations of critical public financial distress of southern local municipalities and Mafia infiltration. They conclude that the collusion between criminal organizations and local administrations severely affects the allocation of public finances. Again, even though it was written with a different purpose with respect to my dissertation, it adopts a particular methodology from which my model estimation was inspired.

As the dissertation will be structured in such a way to provide both for a qualitiative description of the subject matter (Section 1), and for a subsequent study based on a quantitative analysis, it is as important as possible to also have references con-

[4]Title V of the Italian Constitution was amended with the Constitutional Law 3/2001 and it enacts art.5 of the Constitution, which recognizes local authonomies as entities already existing before the Italian Republic was born. Municipalities, metropolitan cities, provinces and regions are recognized as entities of their related inhabitants and, as such, are required to provide for the satisfaction of their needs. More information at `https://www.governo.it/it/costituzione-italiana/parte-seconda-ordinamento-della-repubblica/titolo-v-le-regionile-province-e-i`

cerning historical background of local administrations and of their management of public finances. To this purpose, one of the most interesting papers in the existing literature is the work by Scala F. named *Capital Expenditure Financing in Italian Municipalities: An Analytic Approach. Business and Public Administration Studies.* In his research paper, he traces a line connecting the steps of the evolution of local public finances in Italy. The author starts by describing the different forms of public finances' management that have characterized the italian peninsula, from the "derived finance" method to the "New Public Management". Throughout his work, he stresses several times the asyncrhonicity between municipal tasks and their scarse fiscal capacity. A relevant quote is hereby reported to provide evidence of the issue at hand *:"Different levels of development within the country imply considerable differences in the contribution, in terms of productivity, and affluence that different factors of development can generate in territorial areas. The Italian backwardness, at national and local level, points out the necessity for Italy to cover this gap, in order to ensure growth, and competitiveness to the country, and make it able to compete in the global world".* From what the author states, it is clear that discrepancies among the different administration channels (i.e., National Government, regions, provinces and municipalities) represent a concrete problem of the "Bel Paese", thus limiting the potential exploitation of resources and treasures of this country.

Keeping it on a the qualitative" side, one further evidence was considered in the composition of my dissertation, that is *"Financial Distress in Italian Public Administrations"*, (2016) by Prof. M. Sargiacomo. Though the official author is Professor M.Sargiacomo, this book includes a collection of several research papers dwelling on the topic of financial distresses (similar to the "*Rapporto Cà Foscari sui Comuni Italiani*"). In particular, I focused on a specific paper (Chapter 2 in the book) named *Financial distress and Italian local governments. Debating the national special legislation on "deficitarietà strutturale", and "dissesto finanziario"*, (2010) written by Capalbo E, Grossi G, Ianni L, and Sargiacomo M. . In their work, Sargiacomo M. et al. carry out a thorough analysis of the Italian legislation on Local Government's

financial upset. They begin by presenting the different cases of financial distress and discussing their main implication in relation to the national framework on the matter. Then, an interesting study on the reaction of the Central Government is proposed, along with a brainstorming of the recent regulatory changes. To conclude, they agree on the idea that there seem to have been evident modifications in the approach of the Central Government toward municipalities in financial difficulties, but they also convey that further studies shuould be carried out in order to assess the real effectiveness of such legislative measures. By the way, this is exaclty what this paper is intended to do. Willing to actively contribute to the research on this topic, this thesis aims at answering the following research questions: how do local municipalities face the problem of restructuring their public finance situation? Does financial distress imply a reduction in the public services normally granted to the citizens? Does the critical financial situation of the involved local municipalities get any better when ending the related procedure aimed at restoring public finances? These are the research questions that this dissertation is looking forward to giving an answer to. More specifically, the research will be considering local municipalities whose administrations were either declared in financial distress or that started a restructuring program.

2 General Outlook

The common denominator of all States and Nations is the one of organization. *"A group whose members work together for a shared purpose in a continuing way"* : that is the definition of the term "organization" proposed by the Cambridge Dictionary. Human beings are prone to adapt and to learn how to coexist. Of course, living with other people triggers the need for organization. The term "organization" can take different meanings according to the context it is referring to. A student would interpret it as the activity of organizing a study-plan for their daily-routine in preparation of an exam; an entrepreneur would instead take it as having a well-functioning firm (in terms of sales, margins, labour force, etc.), and the same goes

for the Government. In fact, organization is crucial in creating and maintaining the long-lasting existence of any aspect of life, that is why the majority of countries have opted for very comparable administrative systems when it comes to ruling a State. Obviously, it is well known that different nations exercise different types of control over their territory (i.e., the monarchy in the United Kingdom, Federation of states with a republican form of government in the USA, Democratic Republic in Italy, etc.) but, disregarding the political nature, a common trait is clearly visible in most countries : organization. In fact, the decentralization of the macro-control (exercised by the State) into smaller control centres is common to the majority of the forms of government. From a purely administrative point of view, each country acts in accordance to its political status, nonetheless the underlying principle is basically identical: a well-functioning system requires all of its organs to work properly and continuously, otherwise the "big machine" collapses. To some extent, it is possible to think of a State as of a firm : a company is composed of several displaced bodies (just like the municipalities in a State, that are grouped in provinces, which are then grouped in regions), to whom the main body (like the Government in a State) delivers specific tasks to get done. If a firm's most important objective is maximizing profit, a State's one is to maintain low levels of inflation, low levels of unemployment, economic growth and the balance of payments between imports and exports. Economically speaking, a Government has one main powerful weapon to intervene in the economy, that is through the fiscal policy. By changing the following variables, the Government can influence the economy :

$$FiscalDeficit = TotalExpenditures - TotalReceipts \tag{1}$$

As one can easily guess from Formula 1, the tools available to the Government include changes in taxation (=Total Receipts) and in government spending (=Total Expenditures). Basically, the Profit & Loss formula for firms is translated into the Fiscal Surplus & Deficit for the Government. When the Government is willing to foster growth, it does so by reducing the taxation and increasing total expenditures

(which is also known as "Expansionary fiscal policy", and it is often associated to an increase in borrowings by the issuance of Government bonds). On the contrary, when the Government is willing to inhibit an excessively optimistic sentiment in the economy, it acts in the opposite way. To some extent, this concept could be safely translated from macro-realities (i.e., the Government of a country) to micro-realities (i.e., the single municipalities). As reported in *Criticità finanziarie e insufficienza di risorse nei Comuni italiani*, A.Evangelista,F.Porcelli,A.Zanardi in the latest "*Rapporto Cà Foscari sui Comuni Italiani*", the Great Financial Crisis demonstrated how the net financial position of central Governments is highly linked to the one of subnational administrations. On one hand, the increase in the level of taxation (=Total Receipts) combined to the decline in Total Expenditures has caused a reduction in Fiscal Surplus (the equivalent of the form of Profit for municipalities); on the other hand, the strategies adopted by the central Government have influenced local public finances, thus placing the burden of the adjustments' efforts on the smaller realities. Several central Governments imposed budget constraints on the total expenditures and on the level of indebtedness. Undoubtedly, these measures dramatically reduced the ability of a local administration to provide for basic citizens' services and investments. Rewinding it back to 2008, the aftermath of the crisis hit hard on any aspect of our day-to-day life, and different municipalities were forced to shut down and declare financial distress. In particular, the period ranging between 2009-2015 was characterized by heavy cuts in public spending and cuts in transfers to subnational governments, which undoubtedly affected local public finances. Some of the most relevant cases of local governments filing for bankruptcy happened in the US (Stockton, San Bernardino in 2012 and Detroit in 2013), but Europe is not "immune". Some european sub-national governments reached unsustainable levels of budget deficits, which forced them to take out substantial amounts of debt, which eventually ended up in critical financial conditions. This paper will be centered around the case of Italian municipalities, as after 2008 Great Financial Crisis outbreak, the number of "financially unstable" districts has sharply increased.

In between 2009 and 2015, approximately 1/3 of the entire fiscal consolidation was recovered from a decrease in the transfer of local funds (that were reduced by €8.6 billion, making up 16% of current expenditures and the 33% of capital expenditures). Whenever a local administration is not able to provide for a balanced budget, or when it is not capable of providing the essential services to the citizens (i.e.,street lighting, waste management, public education public health, etc.), or when it is not able to meet debt repayments when due, it is said to be in a financial situation of "default". However, it is relevant to underline that the causes of financial distress can be subdivided into two categories :

1. non-structural causes
2. structural causes

The difference between "non structural" and "structural causes" relies on the concept of responsability : "non structural causes" are monitored by local policy-makers and officials, while "structural" causes include some socio-economic factors whose control goes beyond the supervision of local policy-makers. Examples of "non structural causes" are :

1. inability to manage the budget
2. pressure by members of a group of interest
3. political factors (i.e., strength of the local government at a specific moment in time, political alignment, political orientation, etc.)

Instead, when speaking about "structural factors", we typically refer to :

1. demographic transition (i.e., decline in newborns)
2. fundamental changes in economic habits (which could negatively infliuence local tax-collection capacity)
3. vertical transfer reduction

Now, given that this dissertation is centered around italian municipalities, all legislative measures will make reference to the italian legislative provisions. To this respect, the italian legislation (TUEL : Testo Unico degli Enti Locali)[5] states that local entities can end up facing one of the three following financial conditions :

1. structural deficit (or structurally distressed municipalities)
2. long-term financial restructuring procedure/financial rebalance
3. financial distress (or "financially destabilized" municipalities)

2.1 Structural Deficit

Structural deficit denotes a situation in which conditions of serious disequilibrium are detected. Disequilibrium is assessed by annually comparing a set of financial indicators for each single municipality with the ranges of pre-determined values denoting an ideal equilibrium condition. Criteria used to assess "structural deficit" were first applied in 2010 and were last revisited in 2018. Typically, when more than a half of these indicators does not match the required standards, the Italian Ministry of Interior becomes in charge of monitoring the related municipality, with the purpose of avoiding the subsequent stage : the insolvency procedure and an eventual dissolution of the municipality. This controlling period lasts until the local administration shows the ability to restore a healthy financial conditions in terms of the financial indicators mentioned before.

2.2 Long-Term Financial Restructuring Procedure

Municipalities undergoing structural deficit can activate the *"Long-Term Financial Restructuring Procedures"*. This tool is a programme that was introduced in 2012

[5]art.244-269 TUEL for measures concerning financial distress; art.243 bis and 243 sexies regarding rebalancing programmes

with the D.L. 174/2012 and that is currently regulated by TUEL (Testo Unico Enti Locali) art.243 bis to art.243 sexies. The legislation is stating that the deficit is managed internally by the ordinary organs of a specific municipality, but it must follow specific measures enshrined in a multi-year restructuring plan. The requirement to activate the Long-Term Restructuring Programme is that the related municipality is facing structural financial imbalances that would easily lead to financial distress. In the latest annual report on Italian municipalites published by the University of Cà Foscari, one of the most interesting statistics was related to how many local governments involved in rebalancing plans were not meeting the prefixed financial objectives within due time. Most of the time, this was due to the adoption of excessive unnecessary measures (based on the revision of previously existing plans) by local administrations, whose only intention was to put off the declaration of financial distress.

2.3 Financial Distress

The most serious case of fiscal crisis that a municipality could encounter is called "financial distress". Introduced in 1989, financial distress is a particular case which (as the name suggests), refers to a situation where a local administration is not able to provide for the essential functions and services to its citizens, hence including eligible credits that the municipality is not able to collect anymore. When this happens, the steps to be taken are the following :

1. the City Council votes for a formal restoring of the distress
2. the Central Government appoints an "Extraordinary Board" who is in charge of managing the payment of credits that had already expired, while the other administrative organs are responsible for the ordinary management of financial resources, provided that they follow certain limiting constraints (i.e., increase in taxes, reduction in the number of non essential employees, etc.)

In 2019, the Italian Ministry of Interior declared that it had been working on updating the measures related to financial imbalances. The main intervention strategy is related to the unification of the financial distress with the Long-Term financial reconstruring procedure.

3 An excursus throughout local public finances in Italy

Despite the period preceding the Tax Reform of the '70s was characterized by municipalities having a high level of autonomy, *"the surge of the fiscal deficit and the difficulty in managing institutional activities"* (Marini, 2002 : pg.5) led the Italian State to promote a financial reform with the aim of setting out the guidelines on how to restore public finances in an "organized" way. Speaking in economic terms, the 70s were characterized by a particular event, that is the oil shocks (1973-1980), which led to a decrease in the GDP/per capita (down by 43% with respect to the period 1953-1970), with the government expenditure and tax receipts remaining fixed, thus constituting a non-growing economy. Anyway, it was only in the late 80s that a real reform of the public administration took place. The change was applied to the "beating heart" of a State, to the "ground 0" of our institutional system, namely local entities. Experts, economists, and several authors were all in favour of this reform, as it was clearly visible that :

1. public spending had risen to excessively high levels;
2. there was an excessive intervention of the Government in the socio-economical aspect of Italian citizens (also known as *Welfare State* model).
3. there had been an increase in the minimum-satisfactory requirements of Italian citizens, who were requesting public services that promoted higher-quality life standards.

The straightforward solution back in the days was a complete revision of the administrative mechanism. A new system replicating the organizational structure of a corporation was proposed, namely the *New Public Management*. This new approach was based on the principle of *privatization*, which was applied heterogeneously by other foreign countries. A first effect of this new framework was the so called "administrative decentralization", followed by the decentralization of the management of public finances. Decentralization consists in the transfer of powers and functions from the Central Government to smaller entities/realities within a State. In the Italian framework, this translated to the transfer of powers and functions to the regions, then to the provinces and, lastly, to the municipalities. As previously mentioned, organization is crucial and, not by chance, the direct consequence of an uncontrolled decentralization was a decrease in the amount of available resources to the municipalities by the Central Government, with the purpose of remaining within the boundaries of public spending. An unsupervised decentralization led the path to a chain of events that is now self-predictable : an unavoidable depletion of local entities' public finances, which then ended up in several municipalities declaring financial distress.

The first legal reference to the topic of financial distress was art.25 of the L.D. n.66/1989, whose aim was to set out the guidelines on how to restore public finances of a financially distressed local entity. From 1989 onwards, the legislation was amended and updated several times, and this has generated inevitable repercussions on local entities. They were continuously forced to revise the legislation in force. So, one year a municipality could find itself respecting the measures imposed by the law, and the year after it could be labelled as "financially distressed". Obviously, signals and symptoms of an unhealthy financial situation can be anticipated before the "final crash", but it is also true that many revisions of the same piece of law could trigger confusion and distortions in local governments. Districts had to face a set of challenges, most of which derived from the switch to a more decentralized and more independent administrative system from a centralized one. The

reform of the administrative body (along with the change to a federal fiscal system, L. 42/2009) is crucial in understanding the transfer of functions and services from the State to the municipalities. Moreover, loans and financings were no longer granted on the grounds of a local entity's historical expense, but rather on the average requirements of funds. Currently, measures aimed at preventing local entities from ending up in financial distress are contained in the Titolo VIII of the second part of the TUEL (Testo Unico degli Enti Locali), enforced by the D.L. n.267/2000. *"Si ha stato di dissesto finanziario se l'ente non può garantire l'assolvimento delle funzioni e dei servizi indispensabili ovvero esistono nei confronti dell'ente locale crediti liquidi ed esigibili di terzi cui non si possa fare validamente fronte con le modalità di cui all'articolo 193, nonché con le modalità di cui all'articolo 194 per le fattispecie ivi previste".* This is what art.244, subsection 1 reads. With that being said, it is important to point out two very broad and general conditions for which a municipality can be found in financial difficulties:

1. functional complexities.

2. insolvency.

Both statuses can either be of low-relevance (in case the financial violations are just mere irregularities in accounting, as stated by the Court of Auditors), or of high-relevance (in case they become "structural" deficiencies). If that happens, then there is room for declaring financial distress, and local administrators would typically find it extremely complicated to solve the situation all by themselves. At this stage, the Mayor is required to enact the procedure managing financial distress, which is ruled by art. 244 of the Testo Unico. Once the status of financial distress has been ascertained, the players in the game become the following ones :

1. OSL (Organo Strardinario di Liquidazione), which is the body in charge of managing all the outstanding debts prior to the decision date (the date when the financial distress is filed)

2. Institutional Organs of the municipality (i.e., the Local Administration), that are responsible for restoring the pre-distress equilibrium of the municipality.

3.1 The process

A declaration of financial distress is an irreversible decision and must be forwarded to the Ministry of Interior and to the Regional Prosecutor's Office at the Court of Auditors within 5 working days. It is then posted on the Official Journal. Any assessment of financial distress shall contain an explanation of the possible reasons that triggered it. Within 3 months from the declaration of financial distress, the appointed Commissioner shall propose a hypothetical Budget to be sent to the Ministry of Interior. In order for a municipality to obtain a plan for restructuring public finances, it first has to "turn on" the switch of the revenues/receipts and to "turn off" the switch of the expenses. For what concerns the revenues, a municipality has 30-days to collect all the taxes at the highest tax-rate as possible, and this provision should last for at least five years : from the hypothesis of restructuring to the end of the first term of the financial distress procedure. On the other hand, the municipality should also control for public spending (mostly for current expenditures). To this purpose, the local entity must focus on offering only efficient services and eliminating, instead, the unessential ones. The hypothetical budget is forwarded to the Commission and it undergoes an inquiry (as required by art.261 of the Testo Unico). Within 4 months from receiving the document, the Commission is expected to express its consensus or denial regarding the budget. If the response is positive, then the document waits for the approval of the Ministry with a Decree of Law, otherwise the entity is given additional 45 days to reformulate the hypothetical budget plan. This time, if the response is affirmative, then the process moves forward; alternatively, the Council is dismissed. Once the procedure is activated, the restructuring phase is constantly monitored to check for stepwise outcomes both by the Ministry and by the Audit Body, which then quarterly informs the Council of the results obtained.

3.2 The timeline

The procedure enacted to declare the financial instability of a local entity was introduced by art. 25 of the D.L. n. 66/1989. This procedure was enshrined in the legislative system of the country as to counterreact to the increase in critical financial conditions of Italian municipalities. After several changes in the underlying measures, in 2012 a new procedure was added to the existing one with the Legislative Decree n. 174/2012. The new Institute foresees a set of conditions that could possibly lead to the default of a local entity. Listed below are some of them :

1. The local administration denying the Plan 1
2. The inability of a local entity to follow the guidelines of already approved in the Plan
3. The worsening of the financial condition of a municipality during the preliminary phase.

4 On the assessment of financial distress in the Italian local gov'ts

Once given the definition of financial distress and all its related attributes, it is now time to focus on how to assess financial distress and how do Central Governments react to it . As expressed in the Legislative Decree 267/2000 (hereafter L.D. n. 267/2000), numerous circumstances can be considered as good reasons for the Central Government to intervene. Such cases have synthetically been described in the Introduction, and each one of them reflects a different degree of seriousness in the financial condition of local entities. Hereby I am proposing a more detailed description of each one of them.

4.1 The cases of financial distress

4.1.1 The case of structurally distressed Local Governments

Structurally distressed municipalities are identified by the L.D. 267/2000 as those local governments where there is *:"severe and incontrovertible conditions of financial disequilibrium.* A method for assessing such critical financial condition is enshrined in art.242. It is a quantitative method according to which, each year, a detailed table (that is attached to the official annual financial report) is used to ascertain the financial situation of a local entity. This table contains a set of 10 parameters[6] (last revision dates back to 2013, art. 242) and the relative result of each municipality is compared to the corresponding parameter of this table. Generally, if more than half of the parameters falls outside of the imposed ranges (which were established by the Ministry of Interior based on the minimum financial requirements of a standard healthy municipality), then the local entity under management falls under the supervision of the National Commission on Finance and Personnel of Local Governments. This body receives specific tasks and duties by the Ministry of Interior (which, by the way, is also the authority that originally gave birth to it). Listed below are some of the activities the Commission supervises in a structurally distressed local government :

- monitoring personnel expenditures (i.e., hiring new staff);
- controlling costs for the provision of services ;
- ensuring that, the share of fees and tariffs for both general services (i.e., water

[6]For the period 2013-2015 the revised parameters were :
1) $financial\ deficit\ /operating\ revenues$;
2) $amount\ of\ uncashed\ revenues_t\ /operating\ revenues_t$
3) $amount\ of\ uncashed\ revenues_{t-1}\ /operating\ revenues_t$;
4) $unpaid\ operating\ expenses\ /operating\ expenses$
5) $legal\ procedure\ of\ enforced\ (judicial)\ compensation\ related\ /operatingexpenses$
6) $tot\ personnel\ expenses\ /\%\ of\ operating\ revenues\ (dependingonthedemogragraphicdimension)$
7) $capital\ debt\ /operatingrevenues$;
8) $debts_t\ /operating\ revenues$
9) $unrefunded\ cash\ advance\ /operatingrevenues$;
10) $assetssaleorreserves - usage\ /total\ operatingexpenses$

and waste tax collection) and individually requested services such as kindergarden), covers for a certain fraction of total costs of services [7]

Obviously, as soon as the data on the specific municipality match the prefixed ranges again, the above-quoted Commission will be dismissed, and the intervention will cease (provided that the metrics of the parameters quoted above have come back to the acceptable ranges). Unfortunately, it is impossible for me to compare the situation of a Local Government over time, given that the metrics of the benchmark (that is the set of values in parameters mentioned above) was frequently updated over time. For example, it is impossibile to compare the financial situation of the same municipality over the consecutive years, let us say, 2006 and 2007, because in 2006, 44% of Italian local governments was meeting the entire set of parameters, thus 56% of them was not in line with at least one parameter [8], in 2007, instead, the benchmark was modified, therefore making it impossible for me to have a common trait to use as a comparison term. Nothwithstanding, the real question now becomes : could one possibly predict the event of financial distress just by considering local administrations that are currently labelled as "structurally distressed"? Well, both scholars and national authorities (i.e., *Direzione Generale della Finanza at the Ministry of Interior, Ragioneria Generale dello Stato at the Ministry of Economy and Finance* and *The Court of Auditors*) argue that the assessing method based on mere parameter comparison may lead to a distortion of reality, as they were not designed in such a way to uncover "systemic frailties and latent condition of crisis" (Ragioneria Generale dello Stato, 2010).

4.1.2 The case of financially destabilized Local Governments

According to art 243 of L.D. 267/2000 , a municipality is recognized to be "financially destabilized" when *:"it is not able to assure the provision of essential services*

[7] Failing to cover for services' cost is fined with a financial sanction equal to 1% of the latest certified operating revenues

[8] Out of this share of municipalities, 37% of them was missing just one parameter, 16% were down by three parameters and only 0.2% of them turned out to be in a status of "structural distress"

and functions, or when its creditors' right cannot be fulfilled according to other permitted procedures". Once verified that one of these two conditions holds, the Local Government's Council is required to deliberate the status insolvency, which is then passed on to the Ministry of Interior and to the Court of Auditors to be published on the National Official Gazzette. Given the severe consequences that a municipality would face in case it entered the status of financial destabilization[9], competent authorities are aware that for many Local Governments it is common practice to "slide away" from their duties and responsibilities. For this reason, from 2011 onwards, in case of misconducts and violations of laws, The Court of Auditors is authorized to charge a *Prefetto* with the task of initiating a legal investigation on the causes of such financial destabilization. When a district is labelled as "financially destabilized", there are two activities that become essential :

- 1) the repayment of expired debts by the Extraordinary Board appointed by a Presidential Decree. The Board is charged with the task of quantifying the amount to be paid-off (art.254) and to repay creditors (art.256) in compliance with a recovery plan

- 2) the recovery of financial conditions by the Local Government's institutional administrative organization (art. 245). They are responsible for analysing the causes of the distress and they should ensure the coming-back to the pre-destabilization equilibrium as soon as possible. These promises are regulated by art.250 and art.259, which impose limitations on operating expenses and payments (art. 250 and art. 259), reducing the total number of personnel and a simultaneous increase in taxes for services (art. 251 and 259) .

A budget containing references to all the measures applied by local governments is kept and transmitted to the Ministry of the Interior for approval (art. 261). Overall, the complete procedure of past debts repayment and the restoring of financial

[9]Initiating the procedure requires the separation of tasks between the parties : on one side, the Extraordinary Board (appointed by a Presidential Decree) is in charge of paying off expired debts; on the other side, local governments are responsible for recovering the financial condition of the involved municipality

conditions is required to take place within 5 years. Data on financially destabilized LGs are released on an annual basis by the Court of Auditors, and it is reported that the total amount of granted funds (i.e., granted loans covered by State aids) to local government halved in the period 2001-2008 compared to the period 1998-2001. The reduction in financial aid was expected to reduce the number of municipalities entering the procedure, as relying on a lower amount of available funds (provided by the Central Government) would have been perceived as "too risky" by local entities undergoing financial destabilization. Surprisingly, it did : less districts were entering the procedure, but that does not directly imply a better management of local public finances. In fact, the restoring of public finances for financially destabilized municipalities became even more complicated, and many of them ended up preferring "to mask" the real financial situation of crises instead of filing for the procedure. So, although most of local administrations have became more judicious in their administrative behaviour, there is still room for pathological misconduct.

4.1.3 The case of Long-Term Restructuring Programmes

Art. 243-bis of L.D. 267/2000 introduces the possibility for municipalities facing structural financial imbalances to switch from a critical financial situation to a recovering one through the Multi-Year Restructuring procedure. This initiative works with a debt-rescheduling plan that lasts no longer than 10 years . For what concerns the legal procedure, it is first deliberated by the Local Government's Council, then it is passed on to the Ministry of Interior and, finally, to the Court of Auditors. On one side, the plan analyses the real causes of financial destabilisation, while on the other side, local governments under management are allowed to contract new loans which must be collateralised by owned revenues. Local governments' official auditors are periodically required to submit a report to the Ministry of Interior and to the Court of Auditors relative to the implementations and the outcomes of restructuring measures. Restructuring Plans are not fixed, instead, they are flexible and dynamic, as whenever difficulties are perceived in the performance of agreed-upon duties, the

Plan is modified with the purpose of targeting a specific municipality's goals and targets . Therefore, proper adjustments of the rebalancing plan should be notified and approved both by the Ministry of Interior and by the Court of Auditors. Data about Long-Term Restructuring Programmes are available in the webpage of the Fondazione Cà Foscari[10] upon request.

4.2 The causes of financial distress : a chronic "disease" or an internal flaw?

The logical step following the definition, the explanation, and the presentation of the different financial distress cases and of their assessment methods, is to understand where it comes from. So, for this paragraph, the question becomes : what are the causes of financial distress? An ongoing debate as to whether to "blame" a somehow pathological status of most municipalities all around the world, or to simply concentrate on internal criticalities has been opened for decades, at least since the issue of financial distress was first brought up.

4.2.1 Looking for causes : international framework

Let me zoom out from the Italian framework for a while : in Section 1, I stressed quite a few times the importance of the term "organization". Now, thinking about it, States are nothing but giant businesses whose clientele is composed by their inhabitants. Along with this statement, districts are nothing but some divisions of this huge business, and everybody agrees that : never has a business worked out successfully without, at least, a bit of organization. Therefore, I can safely state that the common denominator among nations all around the world is organization (as stated in the General Outlook). In fact, due to the impossibility of exercising full and direct control, most countries have resorted to subdivide their territory into smaller control areas. In international literature, the causes of local governments' financial distress were inspected by following two approaches:

[10] FondazioneUniversitàCa'Foscari

- Socioeconomic decline approach
- Local management approach

According to the first approach proposed by Chernick and Reschovsky, (2001); Kloha et al., (2005); Jones and Walker, (2007); Kihmi (2008); Capalbo and Grossi, (2004), the causes of financial distress are to be found in exogenous negative socioeconomic factors, such as :

- downward business cycle trends and the reduction in active businesses, as for the economic reasons;
- massive migration, as for the demographical reason;
- time-consuming bureaucracy policies, as for the legal reason;

Opposite to this school of thoughts, other scholars concentrated on certain inner factors of inspected municipalities : some of their "flaws" are related to :

- managerial deficiencies (i.e., a lack of competency by the administrative bodies, who are responsible for erroneous managerial practices like : weak application of accountability methods, measurement errors, wrong budgeting practices and incorrect estimation procedures);
- others are instead related to some misconduct and unfair behaviours that are common to almost every country, like : corruption, political fragmentation, and a frail supervisory mechanism.

To conclude, I can say that, at an international level, the issue of financial distress has been tackled according to two different mindsets : one is more centred around the external factors that would trigger local entities' critical financial imbalances, while the other one is keener on investigating the causes of distress inside the country. Attributing the responsibility of a municipality's financial distress only to one of the two approaches would make no sense, as reported by [Massimo Sargiacomo, 2016] *:"we agree in recognizing that a financial crisis does not evolve only for one*

reason, as local governments' financial vulnerability is definitely bothered by diverse and interacting factors acting simultaneously. Thus, Ineed to further investigate the relevance of both external and internal factors causing financial disequilibrium in our national context"

4.2.2 Looking for causes : "in-house" evidence

I will now zoom back in the districts of the Italian peninsula to verify which of the previously mentioned inernational "schools of thought" better fits the Italian case. First of all, let us list some of the most common criticalities that are common to the majority of Italian local governments :

- financial deficit (when municipal expenditures overcome tax revenues)
- off-balance sheet debts (many of which will later become unsustainable). In 2012, 66% of them derive from judicial controversy and they are paid-off by using existing revenues (26%), past surpluses (23%) and fund allocations in the annual Budget (20%). Data are referred to 1951 municipalities that incurred in off-balance sheet debts in 2012, and are taken from the Court of Auditors' last official report on financial conditions (2013).
- uncashed revenues and unpaid expenses

Let us consider a random period : 2011 , which was one year prior to the introduction of the Multi-year Rebalancing Plan (or Long-Term Restructuring Programme). In 2011 : 156 Italian Local Governments registered financial deficit (reaching 1339 million Euros); 260 Municipalities did "formally" report financial surpluses , but they also reported unfunded off-balance sheet debts (adding up to a total financial imbalance of 1,597 million Euros). But it was not the first time that Italian municipalities experienced this situation, and it was surely not the last one : if in 2011 the inhabitants of interested local entities formally had a 417 Euro/capita debt, 2012 witnessed 1951 local government registering off-balance sheet debts (amounting to 1265 million Euros). Back at the time, more than 2/3 of Italian local government

could not sustain the annual per capita cost of existing debt, though considering that municipalities could resort to extra-ordinary and non-recurrent revenues (i.e., past financial surpluses or gains from the sale or the transfer of assets, etc.). Furthermore, Constitutional Law n. 1/2012 allows local governments to open new financial positions (i.e., loans, mortgages, etc.) in order to fund both short-term and medium-long term investments, provided that they ensure a safe and sound financial condition as long as the debt is not fully repaid. Taking one further look at the data, I can notice that previously defined approaches are complementary to each other, because on one side, the frequent changes in the national legislative framework can be considered as the external factors and, while on the other side, internal factors should, by now, be easier to understand : off-balance sheets debts, wrong procedure of purchasing goods and services and debt unsustainability, they all seem to be related to erroneous managerial practices, hence an internal flaw of municipalites in financial difficulties.

In conclusion, I can give an answer to the initial question, that was :"What are the causes of financial distress for Italian local governments?". Well, undoubtedly, on one side, Italian districs tend to have a "vicious" connotation for what concerns their managerial practices, which could potentially translate into severe conditions of financial imbalances. But on the other side, "time-saving" techniques (i.e., selling hoods, using existing surpluses and "creative" bookkeeping reporting strategies), are also the methods used to handle financial criticalites in Anglo-Saxon countries (UK and USA). So yes, financial distresses in Italian local governments are due both to a set of internal flaws of involved municipalities, but there is also a slight connotation of a "chronic" or "pathological" behaviour, that characterizes most municipalities worldwide.

4.3 The reaction of the Central Government

The next question is :"how does the Central Government react to the formally acknowledged cases of financial distress?". Before answering to this question, let me

make the point on what international literature has to say on the issue at hand. Most scholars agree on the need for financially distressed local governments to be granted support from the Central Government until their financial condition is restored. (Coe, (2008); Cahill et al., (1994); Gannon, (1993); Chernick & Reschovsky, (2001); Kihmi, (2008)). Considering the American system, there are three main approaches with respect to financial distresses :

- 1) not recognizing the issue at all (though States adoptinf this approach have typically established a special financial support for distressed local governments)
- 2) developing "ad-hoc" procedures targeting any special case of local governments' distress
- 3) multijurisdictional approach : referring to a law (or a set of laws) recognizing and regulating financial distress. A set of criteria are determined according to which local governments access (or exit) the supervisory procedure.

For what concerns the Italian case, the approach of the Central Government resembles the third one quoted above, namely the multijurisdictional one. There is a national legislation[11] that subdivides the different types of financial distress into classes of government[12]. From the data at our disposal, it is evident that there have been several changes in how the Central Government reacted to financially distressed municipalities. In the beginning, it used to provide distressed local governments with the total funding for the restructuring phase; then it moved to a generalized approach to later switch to a more tailored-specific approach (more frequently in the case of Big Cities). Nowadays, the Central Government has come back to a general approach (multijurisdictional approach), leaving the involved local governments the independence to plan and manage the restructuring of the municipality.

[11]D.L. 267/2000
[12]Cahill, et al., 1994

4.4 Public finances in Italy : a story of limited resources

2008 Great Financial Crisis is by far the strongest evidence in support of the close relationship between Central and subnational Governments (Ahrend et al. (2013); Vammelle et al. (2013)). On one side, the rise in local governments' debt due to lower tax revenues and a simultaneous increase in the demand for public services, inevitably put pressure on Central Administrations (bottom-up effect). On the other hand, Central Governments' willingness to implement strategic fiscal consolidation mechanisms resulted in a decentralized effort (top-down effect). In the aftermath of the crisis, several OECD[13] countries enacted fund-cutting procedures and imposed budget objectives and deficit targets to meet for their subnational governments. Therefore, it should not be difficult to understand why the number of financially distressed local governments has drastically escalated since 2008. All over the world, there were registered cases of financial distress : in the US, with the cases of Stockton (2012), San Bernardino (2012) and Detroit (2013), and in Europe (more precisely in Spain) with was the case of Catalogna (2012). Nevertheless, out of all financial distress cases, Italy remains, unfortunately, the most interesting case-study on the issue (though being also the main subject of the entire dissertation). As explained in the previous section, cases of financial distress (both structurally distressed cases, financially destabilized cases, and cases of multi-year rebalancing programmes) surged in the post-crisis period. Section 4 will be analysing the evolution of these phenomena over time from a numeric point of view. According to Pammer (1990), situations of financial imbalances of local governments are provoked by two factors that were already presented in the General Outlook (Section 1) :

- structural
- non-structural factors.

Structural factors are related to the socioeconomic features of local governments and they typically fall outside the control of the local administration (i.e., structural

[13] OrganisationforEconomicCo-operationandDevelopment

changes in the dynamics of production, demographic reduction, and the elimination of vertical fund-transfers by the Central Government, etc.).

Non-structural factors, instead, are those that fall under the control of local administrations, such as : financial and managerial deficiencies and the pressure by the political parties. Given that Italian municipalities were used to exploit vertical fund-transfer programmes to face the demand for public services, they did undergo through hard times and weak financial positions when the programme was dropped. That severely undermined the ability of local entities to provide the citizens with essential public services, as required by citizens. Of course, over an average of 8000 Italian municipalities in the last 20 years, there have been municipalities that could have easily survived even without the fund-transfers, but there wew others that would not have last for long without financial support. An example of what just stated happened during the years between 2009-2015, when local governments assisted to an overall cut in vertical fund-transfers, equal to 8.6 billion euros. It was only when municipalities were later allowed a greater autonomy in terms of tax collection, that just a small fraction of this 8.6 billion euros was replaced by higher tax revenues. But, still, the biggest share of the fund reduction has not been recovered yet. The approval of Law 42/2009 has recently led to the determination of specific standardized (current) expenditure indicators (hereafter SEIs) for each individual district ("fabbrisogni standard"). This law marked a big step in the history of decentralized administrative systems, as it set the grounds for the new fiscal equalisation system ("sistema perequativo fiscale, hereafter the FES) at municipal levels. SEIs are useful to assess the total amount of resources to provide local entities with. SEIs are computed by controlling for socioeconomic features that are typical of a specific municipality or of a local area. As far as my study is concerned, SEIs come in handy when evaluating :

- how affected were municipalities by fund-transfer cuts
- to what extent have these reductions in public aids played a role in increasing the probability of default of local entities.

With the purpose of giving an answer to these questions, let me recall that, in 2015, the FES was renewed, and it switched from a Vertical structure (where funds were channelled from the Central Government to a specific local entity), to a Horizontal structure (where transfers of funds occurred between districts). So, from 2015 onwards, a set of SEIs regarding municipal expenditures (which makes up for 80% of the current expenditure) were determined. This served the purpose of establishing the new FES system. SEIs correspond to the amount of money that should be transferred to each single municipality once controlled for socioeconomic differences (which affect production costs and the demand for public services). A "top-down" approach is applied as to set out the exogenous overall amount of total resources to be funded. Subsequently, relative measures with respect to the standard expenditure levels are computed. This procedure is usually referred to as "normalization", and it is used to have an uncomparable resutls when relating values coming from such a heterogeneous sample as the one of municipalities. Let's recall that, prior to 2015, current expenditures were entirely financed by taxes, local tariffs and FES based on the historical expense of local entities. SEIs basically represent the equally-split amount of resources that should be credited to each municipality. This new perspective makes life much easier : it is now simple to evaluate the discrepancy between SEIs and a local entity's current financing mechanism. The higher the discrepancy, the greater the probability of a district to incur in financial distress. The new FES suggests to just look at the difference between the SEI and the fiscal capacity of a municipality, hoping to fully replace the old system by 2030. Data show that, in 2020, only 27.5% of fund-transfers were attributed to the new FES. When receiving funds from the "Fondo di Solidarietà Comunale[14] by Ministry of Interior (thus switching to the new horizontal fiscal equalization system system), Italian local governments can be identified in two groups :

- municipalities with a positive amount resulting from the difference between

[14]The Fund is intended to ensure an equal distribution of resources to the Italian municipalities. On one side, it compensates for resources attributed in the past, while on the other side it works as an equalisation system, with the purpose of getting rid of the historical expense

standard needs and fiscal capacity. These are also said to be "in surplus" or "in excess" of standard needs.

- municipalities with a negative amount resulting from the difference between standard needs and fiscal capacity. These are also said to be "in deficit" of standard needs.

Grouping districts in classes by population ranges and by regions, some interesting outcomes are worth mentioning :

- there is weak evidence on the existence of a relationship between the share of municipalities in financial distress and the share of cut-off funds over the total current expenditure (low correlation with a coefficient between 0 and 0.3)

- there is quite a strong positive relationship between the share of municipalities in financial distress and the level of Horizontal Fiscal Imbalance[15] (quite strong correlation ranging between 0.5-0.7) meaning that : the bigger the size of the Horizontal Fiscal Imbalance, the greater the share of local entities in financial distress becomes .

- an evaluation of the performance of local administrations was carried out by the website Opencivitas.com[16]. To do so, it adopted two metrics :

  - the difference between current expenditure and the SEI
  - the difference between effective levels of offered public services with respect to a benchmark (this last one was computed as the average of per capita offered public service of the same demographic class)

  These two measures were then exploited to build a brand-new indicator known as "QLP", or "Quantitative Levels of Performances". This indicator assigns a value ranging on a scale 1-10 to each municipality according to its degree

[15]Horizontal Fiscal Imbalance is measured as the share of local entities (in each region and in each demographical class), that should receive more equalizing funds in order to be able to finance its standard expenses according to the new fiscal equalization system.

[16]`OpenCivitas`

of performance. QLP is calculated as the weighted average of the percentage deviation of the historical expenditure from the SEI plus the percentage deviation of the effective level of offered public services from the benchmark. After computing the QLP indicator, local entities are once again grouped by demographical class and by region.

In both scenarios, we can notice that there is an evident negative relationship between the share of municipalities in financial distress and the level of efficiency of a municipality. The way to interpret this outcome is that, the lower the efficiency level is (on a scale 1-10), the higher the number of financial distress cases gets. Not surprisingly, this result is much stronger and clearly visible when grouping municipalities by geographical classes. This is just adding another piece of evidence supporting what was already expected since the beginning : along the North-South bisector, this statement holds true in a much stronger way than when districts are grouped by population. The reason for this phenomenon relies on the fact that a much higher frequency of financial distress cases is in the South of Italy.

5 Financial disequilibria of local administrations' in numbers

1989-2020 : it has been 31 years since the Decree Law n.66/1989 introducing legislative provisions for municipalities that are undergoing critical financial situations. As of the 31st of December 2020, there were 7903 municipalities in Italy and, over the three decades, 1101 procedures[17] (either financial distress or Restructuring Programmes) were activated (see Figure 2 and Figure 3), involving 841 municipalities. That represents around 11% of total Italian municipalities. In 2012, as discussed in previous sections, a new procedure was introduced, namely the Legislative Decree n.174/2012, which consisted in a greater controlling responsibility of local entities by

[17]All data for this Section were taken from the annual publications of *Fondazione Cà Foscari*

the Italian State and, more importantly, the inclusion of a Long-Term Restructuring Programme with the purpose of restoring public finances of distressed municipalities. Originally, the Programme lasted for 10 years, and it contained a Recovery Plan to be adopted by local entities when facing critical financial conditions or when having already filed for bankruptcy. Theoretically, the programme is intended to mature when the involved municipality gets back to an "Equilibrium"[18], and the financial situation of the municipality is then labelled as *in bonis*. Of course, this new stage may or may not be the same "equilibrium" as it used to be before the need to introduce the Restructuring Plan. In practice, only few local entities successfully completed the programme and were, thus, able to reach a new "Equilibrium". An example is provided by the municipality of Campione d'Italia in the province of Como, Lombardy : after going over a 3-year Restructuring Programme (2012-2015), the plan was suspended, since the municipality showed ability in restoring its financial situation. Sadly though, it later filed for financial distress in 2018. In between 1989 and 2020, there were 86 total recurrent municipalities, where

- 64% of them (55 cases of total repeat districts, so 0.7% of total Italian local governments, 5% of all enacted procedures, and 8% of the districts involved in financial distress) filed for the financial distress procedure more than once;
- while 36% of them (31 cases, so 0.4% of total Italian local governments, 2.8% of all enacted procedures, and 7.4% of the districts involved in Long-Term Restructuring Programmes) entered the Multi-year Rebalancing Plan more than once.

Tables 2 and 3 summarizes the number of recurrent cases per region for the both separate procedures during the period of interest.

[18] which coincides with a renewed healthy financial condition

5.1 Descriptive analysis

5.1.1 Geographical Distribution

One of the most interesting statistics to observe in the latest data published by the Fondazione Cà Foscari is given by the number of local entities that either activated a financial distress procedure, or a Long-Term Restructuring Programme by region. A first glance at the geographical distribution of the data is sufficient to formulate an initial idea of the two phenomena : what emerges by looking at the Figure 4a and 4b (which are meant to show respectively the absolute and relative distribution of financial distress cases over the entire country) is quite worrying : around 1/4 of total procedures[19] (280 cases, 193 procedures for financial distress plus 87 cases of Long-Term Restructuring Programmes) were initiated by logal governments in the region of Calabria; similarly, 241 procedures were enacted in the region of Campania, making up for 22% of total procedures); next there is Sicily, which shares 15% of total declared procedures (166 cases), while the region of Latium and Apulia share approximately the same fraction (having respectively 84 and 82 cases, thus composing 7.6% and 7.4% of total procedures). Halfway in the distribution, the positions are mainly occupied by regions of the Centre of Italy : Abruzzo (36 cases), Molise (32) Marche (14), Tuscany (18), Umbria (10), and one region from the South, namely Basilicata (35). In line with the expectations, places in the lowest percentile of the distribution are mostly taken by northern regions : Liguria and Emilia-Romagna both have 14 declared cases, Veneto (4), Trentino-Alto Adige (1), and one region coming from the South of Italy with only 4 declared procedures : Sardinia. Aosta-Valley and Friuli-Venezia Giulia have reported no cases up to now. Interestingly, there is one region belonging to the North of Italy that could compare its number of total cases (combining both procedures) to the regions of the Centre/South, that is Lombardy (45), making up for 4% of the total number of declared procedures.

[19]Declared cases of financial distress and Long-Term Restructuring Programme. Figures 4a and 4b can be interpreted singularly or combined together depending on the purpose of the study

Italy is well known for its internal diversity. In terms of culture, there are several dialects and official languages (i.e., Sardinian's dialect, which is recognized as an official language), numerous beliefs, typical dishes, cliches and different ways of living throughout the "Italian boot". However, despite the beauty of this nation is given by its intrinsic heterogeneity, on the other side of the coin, it is well known that northern regions have long been characterized by higher standard of living and a better quality of life. Moreover, a greater industrialization has brought faster growth rates and a more advanced economy. As a matter of fact, these discrepancies have undoubtedly had a relevant impact also on the general administration of local entities and, since the core of this research is focused on the management of local public finances, it is by no surprise that results depict a framework which strongly reflects the socioeconomic disparities within the Italian regions.

To this purpose, a classification based on the geographical location of the regions is hereby proposed. The grouping of Italian regions has been carried out in accordance with the classification proposed by the Italian National Institute of Statistics(ISTAT[20]. Regions are, thus, formally grouped into three categories :

- Regions of the North of Italy (Aosta Valley, Emilia Romagna, Friuli-Venezia Giulia, Liguria, Lombardy, Piedmont, Veneto, Trentino Alto-Adige)
- Regions of the Centre of Italy (Abruzzo Latium, Marche, Molise, Tuscany, Umbria)
- Regions of the South of Italy (Apulia, Basilicata, Calabria, Campania , Sardinia, Sicily)

Following this reasoning, Figure 5a) and 5b) portrait respectively the share of Financial Distress per geographical area (Figure 5a), and Long-Term Restructuring Programme procedures per geographical area (Figure 5b). Both are useful in supporting the theory of substantial differences among Italian areas, since 79% of financial distress procedures were activated by municipalities located in the southern

[20] Istat.it

part of the country; 15% come from regions belonging to the Centre of Italy, and only 6% were requested by northern regions.

As far as Long-Term Restructurings are concerned, the picture closely resembles the one on financial distresses : in fact, 72% of total Restructuring procedures were enacted by regions of the South of Italy, while an equal share of 14% of Rebalancing Procedures was initiated by regions located in the Centre and in the North of Italy.

5.2 Financial Distress procedures

683 is the number of declared financial distress cases in the period 1989-2020. This makes up around 62% of total cases in the country (Figure 6). In this period, there were 55 "recurrent districts", meaning municipalities that entered the financial distress procedure more than once (see Table 1). This means approximately 5% of the total number of activated procedures[21]. To some extent, this result could potentially be interpreted as a proxy for the inefficiency of the procedure itself, given that, in principle, municipalities are not expected to default. Now, if this happens more than once, then there might be some flaws also in the way in which financial distress cases are managed by competent authorities.

5.2.1 Geographical disribution

Figure 4a was useful to get a wider perspective of the issue at hand: almost 1/3 (28%) of declared financial distress procedures came from municipalities in the region of Calabria (193), followed by 1/4 (25%) of them being requested by local entities in the region of Campania (173). The third place is attributed to Sicily (80), which owns approximately 12% of total declared financial distress cases. Next, there is Latium(56 declared cases, so 8% of total financial distress procedures) and Apulia (46 declared cases, so a 7% share), followed by regions belonging, mainly, to the Centre of Italy : Abruzzo (26) and Basilicata (24) evenly share around 4% of the total cases of financial distress cases each, Molise(18 declared cases, so a 3%

[21]Equal to 1101 cases, the combination of inancial Distress procedures and Long-Term Restructuring Procedures

share) and Lombardy (17 declared cases, so 2% of total financial distress cases). Once again, the lowest percentile of the distribution is mostly occupied by northern regions (Emilia-Romagna (8), Liguria (5), and Piedmont(9)), except for Sardinia (4), Umbria (5), Marche (8), and Tuscany (8)). They all share less than 1% of the total number of enacted financial distress procedures. The remaining regions (Veneto (3), Trentino-Alto Adige (0), Friuli-Venezia Giulia (0), and the Aosta-Valley (0)), all have less than 1% (or even 0%) of financial distress cases over the sample period. Notice how the proposed classification is, in some way, in line with the historical background mentioned at the beginning of this section : this descriptive analysis has so far supported the theory stating that Italian southern regions are more affected by financial distress cases with respect to northern ones.

5.2.2 Annual distribution

Figure 7 presents the cases of financial distress per year in the period of interest (1989-2020). A quick glance at the data is sufficient to highlight that a Law regulating local governments' financial distress was extremely needed, given that soon after its entry into force (1989), 134 districts filed for it. The cases significanlty reduced over the subsequent 10 years, with an average decreasing rate of 19%, until reaching the minimum in year 2000. Procedures of financial distress remained relatively low for almost 14 years (1996-2010), to then start increasing again over the subsequent 10 years (2010-2020), to finally reach the number of 24 declared cases in 2020. Surprisingly, the years of the Great Financial Crisis (that formally took place back in 2008, but whose consequences prolonged and affected the country at least until early 2015) did not show much influence on the topic. Against all odds, one can gauge a slow moderate increase of financial distress procedures in the aftermath of the crisis.

5.2.3 Demographical classification

For what concerns the demographical distribution of the phenomenon, an insightful classification by population is hereby proposed[22]. Figure 8a shows the result of grouping the sample by population. Such classification is highly relevant in my study, since reporting the number of distress procedures in absolute measures would penalize smaller municipalities (those with less than 5.000 citizens) with respect to the medium-large sized cities (those with more than 60.000 citizens. Therefore, only after grouping districts by their number of inhabitants one could safely conclude which group is more used to incur in financial troubles. This kind of analysis is called "dimensional analysis", and Figure 8b is intended to give a graphical meaning to it[23]. The correct way to interpre Figure 8b is the following : in the period 1989-2020, there were :

- 227 distress procedures from districts whose population count less than 2000 inhabitants
- 169 distressed municipalities from districts whose population ranges bewteen 2000-4999 inhabitants
- 95 distressed municipalities from districts whose population ranges bewteen 5000-9999 inhabitants
- 71 distressed municipalities from districts whose population ranges bewteen 10000-19999 inhabitants
- 56 distressed municipalities from districts whose population ranges bewteen 20000-59999 inhabitants
- 10 distressed municipalities from districts whose population ranges bewteen 6000-249999 inhabitants

[22] As opposed to previous settings in which I considered the total number of enacted procedures, this time I focused on the exact number of municipalities involved. This subsection was carried out following the paper of Giaime Gabrielli *I numeri del disequilibrio finanziario dei comuni*, (2020)

[23] Notice that the sum of the distressed municipalities does not sum up to 683 (which is the number of total financial distress cases) because I considered local governments that experienced financial distress only once.

- 2 distressed municipalities from districts whose population is $>$ 250000 inhabitants

As previously mentioned, by looking at Figure 8a, one would conclude that, in absolute terms, the first class (municipalities with population ranging between 0-1999) is the most affected by financial distresses. Nevertheless, one should always compare the cases of financial distress occurring in each class to the number of municipalities belonging to that specific class, since relative measures are always the most meaningful way to make conclusions about any topic. In fact, reasoning in percentage terms, it turns that the situation is reversed : 16.7% of local entities in financial distress occurred in districts with more than 250000 inhabitants, while only 6.5% of the cases took place in the first class. The direct conclusion is the following one : due to the positive correlation between population and the number of enacted financial distress procedures, as the number of inhabitants in a municipality increases, so does the share of distress cases.

5.3 Long-Term Restructuring Programmes procedures

Since Long-Term Restructuring Programmes were first regulated in 2012, there have been 418 registered cases of local entities experiencing this programme (at least until December 2020). As it can be seen in Figure 6, this makes up for 38% of total activated procedures (both Financial Distress and long-Term Restructuring Programmes) in the country. Throughout the 8 years lifetime of the Programme, the trend pretty much followed a heterogeneous dynamic (Figure 9), with peaks in 2013 (65 cases making up around 16% of the overall L-T Restructuring Programmes), followed by 2016 (55 cases, around 13% of total cases) and 2019 (53 cases, again around 13% of total cases). Let us recall that Italy officially exited the Great Financial Crisis in late 2014-beginning 2015, and that should definitely be taken into consideration as an exogenous macroeconomic factor that could have eventually impacted the financial condition of local governments. Economists have long named

this kind of risk [24] the "systematic risk" which, along with the idiosyncratic risk, adds up to the overall definition of risk, at least when speaking in economic terms. For this reason, the consequences of the Great Financial Crisis (which, by the way, typically tend to prolong over several years, as for the majority of crises) may have affected the management of public finances by local administrators, which could have eventually led municipalities to request the activation of a Long-Term Restructuring Procedure. With respect to the minimum recorded cases of 2015 (32), there has been a significant increment in the number of activated procedures over the subsequent years : on a year-to-year basis, 2016 registered a 72% increase of cases (55). In a similar fashion, both 2017 (48), 2018 (45), and 2019 (53) reported respectively a 50%, 40%, and a 65% increase in the number of L-T Restructuring Programmes with respect to 2015. An interesting remark regarding 2020 is that one could have possibly drawn two case-scenarios on what to expect from the year of the COVID-19 pandemic : on one side, one could have expected many districts to file for a L-T Restructuring Procedure because of the harder challenges in revenues-collecting activity by local administrations, since many taxpayers could have been laid-off from work, fired or may have gone bankrupt; on the other side, one could have imagined a "softer" case-scenario, where the effects of the pandemic would have manifested later in the future, thus not expecting a reduction in the collection of taxes, since they would have been offset by lower levels of public spending (due to the reduced mobility, closed schools/universities, laws preventing people from gathering outside, lockdowns, etc.), and eventual Government funds[25]. Against all odds, Figure 9 reveals that, in 2020, "only" 27 local entities filed for a L-T Restructuring procedure (making up for only 6.5% of total declared Multi-year Rebalancing Plan cases).

[24] which cannot be neither diversified away nor reduced because of its intrinsic nature in the economy

[25] see note 13

5.3.1 Geographical distribution

As for the analysis on financial distress, also Long-Term Restructuring Procedures are characterized by a particular geographical distribution. Figure 5a and 5b demonstrate that, not surprisingly, the two phenomena go "hand-in-hand", although both procedures may take place independently from each other. As a matter of fact, it is in no way surprising that also most of the Long-Term Restructuring Procedures occur more frequently in the southern regions of Italy (72%), while the Centre and the South equally split the remaining fraction of cases (14% each).
The "ranking" for L-T Restructuring Programmes resembles quite fairly the one of financial distress procedures, and Figure 4b proves so : notice that, even though relative fractions are reduced with respect to the previous phenomena, the first five places are to awarded by the same regions : first in the standings is again Calabria (87) followed by Sicily (86) and Campania (68). Fourth and fifth positions are occupied respectively by Apulia (36) and Lazio (28). This means that, over the total number of L-T Restructuring Procedures, 20.76% of them took place in the region of Calabria, 20.53% occurred in Sicily, then the share decreases a bit for Campania (to 16.23%), and then it stays within 10% of total L-T procedures : 8.59%in Apulia and in 6.68% for Latium .

5.3.2 Demographical distribution

For the sake of completeness, Figures 10a and 10b present a dimensional analysis in line with the methodology applied for financial distress cases. Again, the aim of this specific study is to have a clearer picture of the true impact of L-T Restructurings. Also in this setting, by looking at the data in absolute terms (Figure 10b), it may look as if smaller municipalities (< 5000 inhabitants) registered a higher number of cases with respect to medium or big districts (medium : > 60000 inhabitants; big : > 250000 inhabitants), but when normalizing for the population, it turns out that there is (again) a positive relationship (correlation coefficient > 0) between the

number of Long-Term Restructuring cases and the population of a municipality[26] : in fact,

- local entities with less than 5000 inhabitants account for 3.27% of Italian municipalities in that demographical section (181 cases);
- districts with a population ranging between 5000 and 59999 inhabitants account for 8.24% of Italian municipalities in that demographical section (188 cases) ;
- local entities with a population in between 60000 and 249999 inhabitants make up for 17.7% of total municipalities in that demographical section (16 cases);
- finally, districts with more than 250000 inhabitants account for 16.7% of Italian municipalities in that demographical section (2 cases).

After the activation of a Long-Term Restructuring Procedure, a municipality can choose whether to request the access to a specific Fund called "Fondo Rotativo" (Revolving Fund). This Fund is a financial instrument that serves the purpose of transferring financial aids to local entities from the Central Government with the aim of re-activating the lending activity, promoting loans, and easing the access to credit. Loaned amounts will then be repaid back through refunds by the borrowers themselves. Despite the appealing conditions, the easiness and quickness with which funds could be channelled directly from the National Treasury to local entities, only a bit more than 40% (176) of districts that previously entered a Long-Term Restructuring Procedure accepted to receive the fund (Figure 11). Thus, one could easily interpret this reluctancy as a proxy for the inefficiency of the Long-Term Restructuring Procedure, given that the "Fondo Rotativo" was initially thought as a precious resource for the reduction of municipalities' debts. Figure 11 shows some interesting statistics : a key point here is to evaluate the share of municipalities that requested access to the Fund over the total number of L-T Restructuring Procedures

[26]In order to be coherent with the methood applied for cases of financial distress, also in this setting I netted the number of activated procedures by the municipalities that experienced L-T Restructuring Programmes more than once to get the precise number of involved municipalities

that were activated in a particular year. Figure 11 highlights that, on average, less than 50% of the local entities that end up in a Multi-year Rebalancing Plan apply for the Revolving Fund.

5.3.3 The efficiency of the measure

Finally, one further relevant aspect on the matter is concerned with the ongoing status of these activated procedures : obviously, things (may) change over time (hopefully), and it would be interesting to know how the situation has evolved (or eventually come to an end) for all of the involved municipalities. To visualize this, we will resort to Figure 12 depicting the statuses of all the L-T Restructuring Procedures. Surprisingly, almost 1/3 of local entities that activated a Long-Term Restructuring procedure have ended up in financial distress. 26% of them are either under investigation or under management. 9% of them report no information on the current status of the municipality of interest. 5% of them resulted in a withdrawal of the Programme. Only 3% of them are terminated because of the district has been able to come back to an "in-bonis" situation. 2% of them have been terminated due to anticipated closure, and only 1% of them has seen the investigation phase being suspended. As it was the case with distresses, also Long-Term Restructuring Programmes have proved to be in line with the socioeconomic framework of this country. Despite the fact that the two procedures of interest go "hand in hand" as they make reference to the same issue (that is criticalities in local public finances), it is also true that these simple but effective analyses were helpful to provide further evidence in support of an historical background that has long portrayed the South of Italy as "weaker" from an economic point of view, disorganized and with a worse administration with respect to northern regions. Causes and reasons for this fall outside the scope of this dissertation.

6 Empirical evidence on the consequences of financial distress in Italian local governments : a quantitative approach

6.1 Empirical Strategy

By now, it should be clear that Italy stands out as the perfect candidate for developing an intensive analysis of local public finances. Throughout the entire dissertation, it has been proven that Italian local governments represent a significant sample to work with, given that around 11% of total Italian municipalities[27] were involved in cases of either financial distress or of Long-Term Restructuring Programmes. As expressed in Section 4, it would be nonsense to look for a unique cause of the problem, given that several factors have contributed to the erosion of local public finances of Italian municipalities. If Section 4 adopted a more "qualitative" appraoch that focused on the theoretical framework around financial distresses and on the legal provisions taken to this respect, Section 5 was developed under a more "quantitative" perspective, aiming at extrapolating information gathered from past data on critical financial situations of Italian local governments. Following the path developed in Section 5, this final part is intended to tackle another aspect of the issue at hand, that is : estimating the impact of financial distress procedures and Rebalancing Plans[28] on some spending categories of local public finances. To this purpose, a Staggered Difference in Difference [29] design was implemented.

6.1.1 Methodology : Difference-in-Difference and Staggered Difference-in-Differences

DID is a quasi-experimental model that is applied in Causal Inference as a counterfactual evaluation method. It is used by researchers and scholars to evaluate the

[27] 841 districts out of 7903, see Section 5

[28] Hereafter, there will be only the distinction between financial distress and Long-Term Restructuring Programme

[29] hereafter referred to as DiD)

impact of an intervention (i.e., the entry into force of a law, the enactment of a policy, etc.) on some outcome variables of interest. It exploits cohort data or longitudinal data (also known as Panel Data) and it requires data to be grouped in two sets : one is the treatment group, and the other one is the control group. The goal of the model is to obtain an appropriate estimate about the degree of affection (if any) of an intervention on some specific outcome variables. An example will make everything clearer : let us consider the implementation of a regulation preventing late payments in commercial transactions. The relevant question now becomes : how can we be sure that the enacted regulation had an effect on preventing late payments in commercial transactions? And, in case there is any, what is the degree of affection? In order to assess the impact of the regulation, two ingredients are required :

- two groups of interest : one of them receives the aforementioned treatment, while the other one does not. They are typically referred to as Treatment Group (the one that is subject to the treatment), and Control Group (the one that does not receive the treatment)
- two time periods : both groups are observed for two different time periods, respectively before and after the intervention of the regulation

Then, the reasoning follows a straightforward procedure : first, the difference in average payment days for both groups in between the two periods of interest are taken. Subsequently, the second group can be used as the "counterfactual", representing "what would have happened to the first group (the Treatment group), had the intervention not occurred". The third and final step consists in taking the difference between the differences in average payment days between the first and the second group. The result of this procedure is the so called "Difference-in-Differences". Following this synthetic explanation, it is quite easy to guess why this model is named "Difference-in-Differences": in this case, it is just a difference of the differences between average payment days of each group before and after the intervention of the regulation, and the DiD represents the true average effect of the regulation.

Rigorous evaluation is useful to find out if regulations work efficiently. The DiD provides a powerful method to do so and, therefore, it helps improving the design of future policies. The DiD method is widely applied in several fields of study (i.e., social sciences, biology and chemistry, economics, etc.) as it serves a similar purpose but, at the same time, it is also easily adaptable to many different frameworks. [30] This methodology is applied in observational settings where, assumed that the intervention does not occur, the unobserved differences between treatment and control groups are the same over time (also known as "weak exchangeability"). Therefore, DiD comes in handy whenever indivdual randomization is not possible. Estimates resulting from the application of DiD models allow for comparisons between treatment and control group in post-treatment period.

6.1.2 Parallel Trend Assumption

As for any other model, also DiD design has to follow certain assumptions in order to ensure the internal validity of the estimates. In particular, there are two conditions that must be satisfied :

- the independence of the intervention from the outcome variable : this means that the treatment involved in the model shall not be determined in any way by the outcome variable
- the Parallel Trend Assumption

The Parallel Trend Assumption is the most challenging requirement to be met. The easiness in understanding the concept of Parallel Trend Assumption is indirectly related to the practical complexity in dealing with it. Theoretically speaking, the Parallel Trend Assumption simply requires that, without considering the intervention, the difference between the 'treatment' and 'control' group stays constant across time. The other side of the coin is that, unfortunately, there is no statistical test in

[30] As economists are well known for their inner creativity in replacing model names ,and given that the issue at hand (financial imbalances) is mainly related to the field of economics (more precisely to the niche of public economics), it is worth-mentioning to notice that the Difference-in-Differences method is also known as Natural Experiment by in economics.

pre-existing literature to test for this assumption. Despite that, a "quick-and-dirty" method is commonly accepted by scholars and researchers on how to check for Parallel Trend Assumption, that is through visual inspection. This technique turns out to be successful when dealing with observations that have many points in time, but it has also been tested that it works better with smaller time periods. As usual, violations of Parallel Trend Assumption will eventually lead to biased estimates and incorrect results.

6.2 The implementation

DiD is usually set up as follows

$$Y = \beta 0 + \beta 1 * [Time] + \beta 2 * [Intervention] + \beta 3 * [Time * Intervention] + \epsilon \quad (2)$$

where :

- Y is the outcome variable of interest
- $\beta 0$ is the intercept of the model, also known as the “baseline average”
- $\beta 1$ is the coefficient representing the difference in time for the control group
- $\beta 2$ is the coefficient representing the difference in the two groups in the pre-intervention period
- $\beta 3$ is the coefficient representing the difference in changes between the two groups over time, also known as the “interaction term”
- ϵ is the error term

A simplified SWOT [31] analysis can be carried out as to understand what the advantages and the drawbacks are of adopting this model. The strengths of the model are :

- relative easiness of the concept

[31] S=Strengths, W=Weaknesses, O=Opportunities, and T=Threats

- intuitive interpretation
- possibility to apply the model to individual or group data
- groups being compared can have different starting points

The main weaknesses, instead, are

- it is not applicable if Parallel Trend Assumption does not hold
- it is not applicable if the composition of the two groups changes over the pre/post treatment period
- it is not applicable if the intervention is determined by the outcome variable

The advantages and related opportunities are

- it provides for easy-to-interpret resultS
- it provides for a quantitative measure of the impact of an intervention on an outcome variable of interest
- it allows to compare two groups at different periods in time

Finally, the main threat to the model is that :

- it may lead to biased estimates[32]

6.2.1 Staggered Difference in Differences

DiD is a very common method applied in statistics and econometrics. In the last decades, several researchers have implemented DiD models to estimate the effect of a particular intervention on a specific outome variable. Although being adopted in several academic papers, there is one limitation to the model that cannot be disregarded so easily, and that is the timing of the intervention. If the involved treatment occurs "una tantum", or in a specific period (i.e., a precise year, month, day depending on the time unit of the study) and provided that the goal is to

[32] A part of this Section will be dedicated to this particular aspect

evaluate the impact of an intervention on some outcome variables, then DiD is the perfect design to go for. If, instead, the observations in the sample receive the treatment at different points in time, then estimates resulting from the application of a classic DiD model would cause problems. To this purpose, a modified version of the original DiD model was proposed, that is the Staggered Difference in Differences. As one could possibly guess, it does exactly what its name suggests : it allows for the implementation of a DiD analysis, but with the intervention occurring at different points in time for the observed data. Staggered DiD is nothing but a generalization of the classic DiD model which allows for staggered treatment adoption. It is sometimes recognized as "TWFE DiD", that stands for Two Way Fixed Effect Difference-in-Differences. As soon as the features of the model are explained, it will be clear why it is referred to as the TWFE. The 'generalized' version of the original DiD model is usually setup in the following way:

$$Y_{ist} = \alpha + \gamma_s + \gamma_t + \delta * D_{st} + \epsilon_{ist} \tag{3}$$

where :

- Y_{ist} is the outcome variable of interest
- α is the constant term
- γ_s represents the fixed effect for the unit term (i.e., country, firms, etc.).
- λ_t represents time fixed effect (fiscal years, quarters, etc.).
- D_{st} is the equivalent of the interaction term in the original DiD model. Basically, the intervention is nothing but the treated observations during the treated period.
- ϵ_{ist} is the error term

Out of all listed factors, the most important one is the σ coefficient. This is the coefficient indicating what is the effect of a specific intervention (D_{st}) on an outcome

variable of interest (Y_{ist}), by assuming that everything else that is happening in the environment (i.e., in the economy) that is not related to the intervention per sé during the considered period, is also happening to the control group. However, such a strong assumption is the reason why Difference in Differences (and its generalization) are still not placed among the top identification strategies.

6.2.2 Identification Strategy

The identification strategy is based on a generalized difference-in-differences (DiD) design that exploits the time and geographical variation of financial distresses (either structurally destabilized municipalities or the activation of Long-Term Restructuring Programme) by Italian local governments over time. In order to identify the cases of financial distress and Rebalancing Plans, I relied on two pieces of law that were thoroughly discussed in the previous sections: the first one is the Decree Law n.66/1989, which introduced legislative provisions for municipalities that are undergoing financial distress; while the second one is the is the Decree n.174/2012, which consisted in a greater controlling responsibility of local entities by the Italian State and, more importantly, the inclusion of a Long-Term Restructuring Programme, with the purpose of restoring public finances of municipalities undergoing financial difficulties. So, I used the declared cases of both activated procedures[33] (and their relative year of activation) by a municipal government to identify my treatment group and my treatment period. Hence, the treatment period ranges from the declaration of financial distress to the end of the entire sample period. Although provisions are not expected to last forever, this decision is justified by the following three reasons :

- 1) for the purpose of analysing if both procedures have an impact on local public finances, it is sufficient for me to have a separation between the pre/post intervention period. Understanding how long the effects last and what is the final outcome of a municipality after completing either one of the procedures

[33]From now on, "both procedures" will refer to Financial Distress and Long-Term Restructuring Programme

falls outside the scope of this research

- 2) the data at my disposal do not allow me to carefully conduct a precise distinction between the pre/post treatment period, in the sense that these data report the beginning date of the procedures (coinciding with either the declaration of financial distress or with the activation of the Long-Term Restructuring Programme), but sometimes miss or delay the final date as to avoid eventual dissolution of the municipality (recall misconduct behaviours from Section 3).

- 3) as far as Long-Term Restructuring Programmes are concerned, they are regulated by the Decree n.172/2012 and the legislation states that the Programme is structured in such a way to last for an average period of 10 years (as of the first extension). Now, according to this legal provision and by applying simple math, it is easy to understand that, at least the majority, of enacted procedures are still ongoing to this date. So, considering the period after the treatment has ended (with the aim of comparing the pre/post intervention period) would simply be impossible in this case.

A way to fix this issue is to focus the analysis on the pre/post intervention period by assuming that the intervention extends over the entire time window. Although being a quite strong assumption, it is also true that very few local entities successfully exited either one of the procedures[34], and this would also trigger sample size problems. Despite several researchers in the field of economic studies are usually forced to restrict the sample size for several reasons, it is always preferred to work with larger ones. A small sample size may minimize the power of a study, and enlarging the margin of error, which is more likely to render the study meaningless and useless. The next step in the construction of the Staggered DiD model is to decide which observations will compose the treatment and the control group. For this purpose, one could easily guess what the two groups will be formed in the follwing way : The treatment group will be related to the municipalities that either underwent/are still

[34]recall the case of Campione d'Italia from Section 5

undergoing one of the two procedures, while, for what concerns the control group, a precise remark is crucial in this type of design : the control group will be composed by municipalities that were never subject to any of the aforementioned procedures and, for those that were, only the years preceding the beginning of the procedure. Last but not least, the application method is the so called "Staggered Difference in Difference" instead of the classi DiD model. The choice is justified by the fact that municipalities enter both procedures at different points in time, thus making it impossible to adopt a classic DiD.

6.2.3 Threats to identification

Given that the cases of financial distress and of Long-Term Restructuring Programmes are not random, the identification strategy may present some potential concerns. First of all, the application of Decree Law n.66/1989 and Decree n.174/2012 may be imperfect : some declarations of both procedures may have been done erroneously, if there was no ascertained circumstance proving it. However, it is also true that this behaviour is expected to be quite rare, as it would involve the activation of one of the two procedures, and a consequent series of difficulties that are more likely to harm the municipality under management than benefiting it. In any case, these issues should not constitute a concern for our estimation strategy, since they would be included in the treated years, thus inducing biased estimated impact of both procedures towards zero[35]. Furtermore, purposely filed practices of both procedures by local entities may be a concern, though this behaviour would lead to legal procedures being enforced against the local administration, which is quite illogic from a rational point of view. Another reason for which cases of manipulated practices are so less likely to occur, is that, despite financial distress procedures are typically enacted by the districts themselves, they are then controlled and supervised by an Extraordinary Board (appointed by the Presidential Decree) and by the Court of Auditors, which is one of the most important Institutions in the Country. This or-

[35]this triggers the point estimate of regression coefficients to be larger (in absolute value) than the observed one)

ganization is formed by highly trained and experienced members, whose knowledge is frequently demanded in matters of financial issues. So, I could safely assume that National Institutions perform their activities on behalf of the Italian State. Hence, given the relevance and the importance of the players involved in the matter, I could strongly reject the hypothesis of law manipulation.

6.3 Data

Data on local public finances of Italian municipalities were collected from the website of the Ministry of Interior's Financial Statement Certificates (Certificati Consuntivi[36]) database, which groups statistics on the public finances of Italian municipalities by spending categories. The website allows the user to input the name of the municipality of interest (or its specific identification code), and the relative year. Once flagged the option of "Contabilità D.P.R. 1996", the user is redirected to another webpage that presents different frameworks containing statistics on the public finances of Italian municipalities (i.e., spanning from some summary statistics on the demographical distribution of the population, to capital account expenditures, current account expenditures, essential services for municipalities and unions, etc.). Following the scope of the dissertation, framework number 13 (labelled as "Essential services for municipalities and Unions " was initially selected as the preferred set of observations on which to carry out the analysis. Unfortunately, in addition to the limited number of available observations, framework 13 presents several other issues for which it was particularly complicated to perform any kind of analysis. For example, several observations were missing, misreported, erroneously registered or completely nonsense. For these reasons, another couple of frameworks were considered, as the original one (framework 13) unfortunately led to statistically insignificant results, and that is probably caused by the limitations exposed above. So, I resorted to consider two other frameworks of equal interest : framework 4 (current account expenditures) and framework 5 (capital account expenditures).

[36] `Finanzalocale|DipartimentopergliAffariInternieTerritoriali`

For this new setting, data are available for the period 1998-2018, and the structure of both webpages is as follows : they first propose a breakdown of the complete dataset respectively for current and capital account expenditures. Current account expenditures represent the outflows faced by a local government for the functioning of its ordinary operations and for the management of its day-to-day activities (i.e., the payment of wages to the personnel, rental payments, loan repayments, expenses on behalf of third parties, etc.). On the other hand, capital account expenditures are related to the expenses that a municipality faces for the acquisition of Real Estate Properties, for the realization of infrastructures, or for any other long-term project. Subsequently, both current and capital account expenditures are further separated into six spending categories that are singularly related to the service and functions for which they have been allocated. The six categories are :

- general administrative functions;
- social sectors;
- construction and waste management;
- transportation;
- public education;
- municipal police.

Furthermore, current and capital account expenditures are then disaggregated into three spending areas : spending commitment, annual expenditure, and residuals. Spending commitment represents the amount of financial resources allocated by a municipality for the subsequent year; annual expenditure refers to the actual spending of a municipality over the course of the ongoing year; and residuals are related to resources that were left unused in the previous year.

6.3.1 Dataset preparation

Data are organized in panel structure, thus reflecting the evolution of a set of outcome variables over time for a specific municipality. Observations on Framework 4 and Framework 5 about municipalities from the regions of Apulia, Basilicata, Calabria, Campania and Sicily were selected from the Ministry of Interior's website for the period 1998-2018. After that, a Panel dataset was built adopting the statistical software STATA. Out of the two models presented before, the Staggered DiD design was the preferred one, grounding on the reasons presented in previous subsections.

6.3.2 The period of interest

As far as the period of interest is concerned, some remarks are essential to be stated. The empirical study was originally carried out on a set of observations extrapolated from the website of the Ministry of Interior, more precisely from the section related to local public finances, that is Financial Statement Certificates (Certificati Consuntivi). Unfortunately, several issues undermined my ability in collecting relevant data. First of all, there are no data after 2018 onwards. So, a plausible comparison with the post-pandemic crisis is impossible. Secondly, for some frameworks (i.e., Framework 4 and 5), data are carefully and precisely reported, while for other frameworks (i.e., Framewrok 13) they present the following list of problems :

- plenty of missing data
- full of measurement errors
- uninterpretable data

To this purpose, an analysis on the most correct sets of data was considered.

6.3.3 Municipalities in critical financial situations

I adopted the Decree Law n.66/989 and the Decree n.174/2012 (respectively for financial distresses and Long-Term Restructuring Procedures) as the treatment/intervention

for the implementation of the Staggered DiD model. This means that two treatment variables were created as dummy variables, namely *distress* and *l_t_programme*, taking value 1 from the moment in which the municipality either declared financial distress or the activation of a Multi-year Rebalancing Programme, and 0 otherwise. This way, I obtained a clear distinction of the treatment and the control group in the period 1998-2015.

6.3.4 Control variables

The Italian National Institute of Statistics Censuses gathered a set of time-varying characteristics at Municipal level that must be taken into consideration in our analysis. Among them, there is : municipal population, unemployment rate, share of industry employment and share of tertiary education degree holders. Control variables are helpful in controlling for heteroneneous features that are particular to the individual districts.

6.4 Model estimation

A Staggered DiD design was adopted to test whether the activation of either Financial Distress procedures or Long-Term Restructuring Programmes could affect the allocation of public finances by local governments of Apulia, Basilicata, Calabria, Campania, and Sicily. The implementation of such a model requires the following elements to be present in advance:

- a treatment group : a dummy variable taking value 1 for municipalities that underwent or have undergone financial distress procedures, and 0 otherwise (hence, representing the Control Group).
- an intervention : the treatment effect in the specified setting is signalled by the application of either the Decree Law n.66/1989 (for structurally destabilized local entities), and the Decree n.174/2012 (for municipalities under Long-Term Restructuring Programme).

The goal of this research is to compare local governments with and without the treatment before and after the intervention is activated. To this purpose, the following model was suggested :

$$Y_{m,c,t} = \alpha + \beta 1 * distress_{m,t} + \beta_2 * long\ term\ restructuring\ programmes_{m,t} + \gamma_m + \theta_t + \epsilon_{m,c,t} \tag{4}$$

where :

- $Y_{m,c,t}$ is the dependent variable referring to a specific spending category c for a municipality m at time t.
- $distress_{m,t}$ is an independent/explanatory dummy variable taking value 1 from the moment in which a municipality has entered a condition of financial distress
- $long-termrestructuringprogrammesm, t$ is an independent/explanatory dummy variable taking value 1 from the moment in which a municipality has activated a Long-Term Restructuring Programme.
- γ_m refers to a dummy variable aimed at controlling for time-invariant unobservables correlated with the timing of the intervention. This variable is also known as "municipality fixed effects".
- θt refers to a dummy variable aimed at controlling for year-specific shocks. This variable is also known as "time fixed effects".
- $\epsilon m, c, t$ refers to the idiosyncratic error term. Over the empirical analysis, standard errors were clustered at municipal level.

The data exploited in the model were previously converted to per-capita measures, as to avoid eventual distortions in the displayed results. This step is crucial in the model preparation phase, as normalization of dependent and independent variables is essential to have meaningful results to compare. The rationale behind this decision is straightforward and logical but, in my opinion, it is good practice to synthetically explain it. Obviously, one would rationally expect a particular spending category

from the local government of, let's say, Palermo (Sicily) to be higher than the same expense but for a smaller municipality. This is true, when reasoning in absolute terms. Unfortunately, they are not representative of the reality. In order to have a clearer picture on the magnitude of a specific variable, it shall be divided by the relative population of that municipality in that specific year. In statistics, this procedure is referred to as standardization or normalization of the data.

6.5 Interpretation of results

6.5.1 Summary Statistics

Table 3 illustrates average per capita spending for the municipalities involved in the sample over the selected period 1998-2018. Average per capita financial resources spent by the municipalities amount to 580 euros per citizen for the capital account (i.e., long-term investments), and to an annual average of 941 euros per capita for the current account (i.e., salaries and services). Summing the two, I obtained the average total spending per municipality at around 1,522 euros per citizen. From Table 3, I can gauge that the spending category to which selected municipalities apportioned the highest fraction of financial resources is "Construction and Waste management", which composes 33% of total capital account expenditure. For what concerns current account budget instead, the highest allocation is allocated to Administration, making up approximately 43% of total current account expenditure.

6.5.2 The impact of financial distress procedures on the overall level of public spending

The first setting analyses the influence of the procedures (so either financially distressed municipalities or local entities that activated a Long-Term Restructuring Procedure) on the overall level of public spending. As explained in the previous section, the control group is composed by municipalities that have never been in either

one of the two procedures[37] and by municipalities from the treatment group before the relative procedure entered into force. Table 4 presents the obtained results. In column 1, I focused on total spending per capita; in column 2, I concentrated on total capital account expenditure per capita; finally, in column 3, I considered total current account expenditure per capita. Estimations were performed including both year-fixed effects and municipality-fixed effects. The outcome is that all three coefficients of the municipalities in financial distress are significant, and in particular :

1. estimates on the coefficients of financial distresses for Total Expenditure and for Total current account expenditure are both significant at a significance level of 1%, while the one for Total capital account expenditure is significant at 5% level of significance.

2. all estimated coefficients for the municipalities involved in Long-Term Restructuring Programmes are significant at a 95\% confidence level.

The outcome suggests that, in both procedures, per capita spending (both capital and current) is reduced. Notice how this result is in line with the initial expectations, as one of the first tasks of structurally destabilized municipalities and of local entities that entered Long-Term Restructuring Programmes is to restore local public finances (typically eroded by debt exposures). To do so, it is common practice for local governments to reduce public spending, thus limiting the potential range of public services offered to the citizens.

6.5.3 The impact of financial distress and Rebalancing Plan procedures on capital account spending components

This section is intended to estimate the impact of financial distresses and Long-Term Restructuring Programmes on some specific capital and current spending components. Results are presented in Table 5. As previously discussed, six spending

[37] let me stress once again that by "procedures" I am now referring to either financial distress or to Long-Term Restructuring Programme

categories were selected as the preferred candidates to represent the public services offered to the inhabitants, that is:

- General functions and Administration Management, which refers to all expenses concerned with the management of offices and the functioning of internal activities of a municipality;
- Social Sectors, which incorporates all expenses related to the management of social services and infrastructures (kindergartens, retirement homes, rehab centres, etc.);
- Construction and Waste Management, that is instead related to the building of real estate properties, and waste collection, which is quite intuitive per-sé;
- Public Transport & Lighting, that is linked to the expenses for granting transport services to the citizens (i.e., acquisition of transport and its maintenance are part of capital expenditures, as they are investments; while the payment of salaries to, let's say for example, bus drivers fall under current account expenditure); for what concerns the lighting, this is related to the service of public lighting and road traffic-lights;
- Public Education refers to the expenses involved in the construction and the maintenance of educational infrastructures (i.e., construction and maintenance of school buildings (capital account expenditure), and school materials (current account expenditure) ;
- Local Police consists in all expenses used for purchasing the related equipment (i.e., police cars that are part of capital account expenditure, while office equipment is instead part of current account expenditures).

Unfortunately, Table 5 does not present statistically significant results, as p-values are always greater than 5% (and, in fact, no t-statistic overcomes the Z-score at the 95% Confidence Level). Therefore, some plausible justifications for these unsatisfying results are proposed :

1. statistical reasons : capital account expenditures occur less frequently than current account expenditures, hence their time-series are more likely to present missing or null values which would reduce the sample size (in case they are missing values) or lower the estimating power of the model (in case they are null values).

2. capital account expenses usually account for large amount of cash outflows (as they are frequently related to long-term investments) and local governments, when facing financial distress or Long-Term Restructuring Programmes, have harder times in reducing capital account expenditures (which are much bigger in magnitude) with respect to reducing current account expenditures, that are instead characterized by lower spending amounts and higher frequency, as they are related to the day-to-day functioning of a system.

6.5.4 The impact of financial distress and Rebalancing Plan procedures on current account spending components

The following setting focuses on the impact of financial distress procedures and Long-Term Restructuring Programmes on some specific spending categories belonging to the current account expenditures.

Construction and Waste management Table 6 outlines an interesting framework : according to the estimated coefficients for financially distressed municipalities, only the current expense on Construction and waste management is impacted by the declaration of a financial distress procedure. The regression estimation output is a positive coefficient that is significant at the strongest level of significance (1%), which statistically means that it is 99% confident on its estimation. The positive coefficient tells me a familiar story : in fact, the research paper *Organised crime, captured politicians, and the allocation of public resources*, (2020) by M. Di Cataldo and N.Mastrorocco, showed a similar result, only in capital current account and in a different, though relatable, framework. Their work was centred around the implica-

tions of local entities' collusions with mafia and criminal organizations on the same capital and current account spending categories (given that the source of the data is Ministry of Interior's Financial Statement Certificates), and they found evidence of an average increase in the expenditure on Construction and Waste management for infiltrated municipalities with respect to the local governments that were never interested by such infiltrations. Despite the two settings do present different characteristics, they are somehow relatable. Let us think about the case in which a municipality underwent financial distress (being structurally destabilized or close to default) due to the infiltration of the Mafia, Mafia-related groups, or criminal organizations : then, such result would not be much of a surprise. In fact, it provides for evidence in favour of what previously discovered in the existing literature. So, this result is extremely interesting, and could be a possible upgrade of the research for future studies. Another relevant remark is that the estimated coefficients for Construction and waste management are the same both in the case of a financially distressed municipalities (independent variable : "distress" in the model), and in the case of a Long-Term Restructuring Procedure, thus suggesting a similar intervention in these scenarios. The positive beta-coefficient implies an increase in the share of committed spending for Construction and Waste management. More precisely, this corresponds to an 8% increase with respect to the baseline average of 0.239 (see Table 3).

Public Education The second outcome of interest is in the capital account expenditure of Public Education, but this time only for Long-Term Restructuring Programmes. The negative estimated coefficient (which is statistically significant at all common levels significance), highlights a reduction in the current account spending for public education. This is justified by the fact that several school-related services (i.e., lunch) are of an "individual nature" (meaning that they are expressively requested by the interested citizens), so it is plausible for municipalities in financial difficulties to reduce those kind of expenses when working for restoring local public finances, as they do not constitute essential expenses.

6.5.5 The impact of financial distress and Rebalancing Plan procedures on local revenues collection

Last, but not least, I exploited the data on local revenues collection to assess the degree of affection of financial imbalances on treated districts' revenue-collection. Recall that, as reported in the Introduction, local governments are expected to fulfill some precise accounting requirements at the end of the fiscal year, similar to firms[38]. Along with this comparison, let me recall also that local governments can default (like businesses) if the level of public expenditures is higher than the collected revenues (see Introduction). Local taxes are an important source of income for local entities. Following the methodology of Drago, Galbiati, Sobbrio (2014), 4 measures of efficiency were calculated from the original dataset :

1. Total Revenues = Total Collected Revenues/Total Committed Revenues
2. Total Taxes = Total Collected Taxes/Total Committed Taxes
3. Property Tax = Property Tax Collected/Property Tax Committed
4. Waste Tax = Waste Tax Collected/Waste Tax Committed

Table 7 illustrates the results obtained : from the framework, it can be noticed that the estimated coefficients on Total Revenues, Property and Waste Tax are all statistically significant, with the only difference that Total Revenues and Waste Tax estimated coefficients are significant at the lowest level of significance (1%) for both "distress" and "$l\_tprogramme$", thus implying a stronger evidence for rejecting the Null Hypothesis; however, in cases of financial distress, the estimated coefficient on Property Tax is statistically significant only at a 10% significance level, hence having the lowest confidence level on the point estimate among the usually adopted ones; So, a quite interesting picture is proposed by Table 7 : according to the results obtained, one could conclude the following : in municipalities that are undergoing

[38]Recall what was discussed in the Introduction about the strong linkages between corporations and local governments (at least in economic terms)

financial distress procedures (so, structurally destabilized districts) the local government shows a greater ability in collecting revenues with respect to the baseline average of municipalities that never faced such a financial situation. Instead, local entities that have activated a Long-Term Restructuring Procedures behave in the opposite way, as the negative and significant estimated coefficient of Revenue Efficiency suggests that these municipalities are instead performing worse than local entities in the control group in terms of ability of collecting revenues from citizens. Moreover, the negative and statistically significant coefficient on Waste Tax Efficiency signals a decrease in the ability of both distressed and "under restructuring" municipalities in collecting taxes on waste and garbage with respect to the average of non-treated municipalities. The reduction corresponds respectively to a 27% and a 25% decrease in the taxes collection ability. An interpretation of these results is hereby proposed. For what concerns the greater ability of structurally destabilized municipalities in collecting revenues, this is probably driven by the appointed Board (upon request of the Central Government), who only has two ways of restoring public finances : either by lowering public spending, or by increasing taxes. Along with this interpretation, the result seems to be supportive, given that it has be read together with the decrease in spending for "Construction and Waste management" and in "Public Education" that emerged from the previous setting. Surprisingly (or not), both structurally destabilized municipalities and those undergoing a Multi-Year Rebalancing Programme show a reduction in Waste Tax collection, but there is a plausible justification for that. Here, it is important to underline a passage from a sentence of the Court of Auditors on March 31st 2015 reading *"Il Comune che presenta un dissesto finanziario deve deliberare per le imposte e le tasse locali, diverse dalla tassa di smaltimento dei rifiuti solidi urbani, le aliquote e tariffe nella misura massima consentita dalla normativa prevista dal D.Lgs. n. 267 del 2000 (cd. TUEL): la finalità dell'art. 251 del TUEL, ispirata alla necessità prioritaria di garantire tutte le entrate finanziarie occorrenti per fronteggiare la situazione di emergenza in cui si trova l'amministrazione finanziaria, non può che indurre a un'interpretazione parti-*

colarmente restrittiva delle misure previste e cioè una rimodulazione dell'imposta di soggiorno che però deve partire dall'applicazione del tributo nella misura massima prevista."[39]. Basically, according to art.251 TUEL, a local entity that is undergoing financial distress is freely allowed (but required) to impose higher (or lower) taxes to inhabitants with the purpose of generating the highest amount of revenues to be used to face the critical financial condition. Now, the sentence of the Court of Auditors suggested to apply the highest tax-bracket for real-estate and for properties, while leaving taxes on waste and garbage untouched. Not by change, the estimated coefficient on property tax is positive and (weakly) significant at 10% significance level, while the estimated coefficient on waste tax is negative and strongly significant at 1% significance level, hence supporting what stated above. Particularly interesting is the reduction in revenue collection by municipalities that have activated a Long-Term Restructuring Procedure. One reason may be that, given the long-lasting lifetime of these plans, local governments may be more interested in better managing financial resources at their disposal (i.e., investments in infrastructures, real estate, territorial development, etc.), rather than immediately focusing on collecting revenues. However, a further inspection of the issue is required in order to draw stronger conclusions.

6.6 Conclusive remarks

The empirical analysis allowed us to have an insightful perspective of how procedures of financial distress can impact local public finances. Throughout this section, I have proven the existence of a set of relationships bewtween cases of declared financial distresses or Long-Term Restructuring Programmes and the variation in local public finances. Based on the obtained estimates, the most interesting results seemed to have a rational explanation for backing them. Past literature was also included, as an additional layer to support the outcomes. Wrapping it all up, this chapter could be summarized as follows : empirical evidence has proven that pub-

[39]Court of Auditors, Regional Audit section of Tuscany, Pres. D'Auria – Rel. Peluffo, approval of Marc, 31st 2015 n. 28

lic finances of local governments in financial distress and those under Long-Term Restructuring Programmes are influenced by these two critical financial conditions. More specifically, in both cases districts exhibit a reduction in Total Expenditure, as it is true that local governments must restore local finances, thus coming back to a healthy financial condition and a balanced composition of total expenditures and total revenues in the fiscal budget. The cutting-off of expenses are typically concerned with current account spending categories, rather than capital account spending, given that the data on current account expenditures are easier to obtain and to manage. In fact, Table 3 shows a greater reduction in per-capita current account expenditure rather than per-capital capital account expenditure. Among the most relevant outcomes, there are : on one side, distressed municipalities that tend to have a greater revenue collection efficiency with respect to local entities that are not see Table 7 , and they seem to be following the provisions of the Court of Auditors (D.L. 267/2000 and in accordance with art.251 TUEL) requiring them to increase the collection of property taxes by imposing the highest tax-bracket to all taxpayers; on the other side municipalities in Long-Term Restructuring Programmes are more prone to reduce spending in current account categories (i.e., Public Education, see Table), but lack the ability to efficiently collect revenues (see Table 6 and 7). Finally, they both present reductions in current spending for Construction and Waste management (see Table 6), that is line with a lower capacity of collecting taxes on waste and garbage with respect to the municipalities of the control group (see Table).

7 Conclusion

Italian local governments have a long history dating back to the Middle-Age period, when they were first born. Although they may have augmented and reduced in numbers over time, they are definitely part of the Italian history and, with this research, my goal was to highlight the relevance of the union. Districts compose provinces, provinces compose regions and regions compose nations, so it

is extremely important and necessary to make sure that “no piece of the puzzle are lost”. Throughout my dissertation, I imagined what it would be like to stop at any single municipality and analyse it from inside its most peculiar activities and finances. Then, once realized that this could only be an idea, I realized that I can actually do it empirically by collecting data on local public finances and digging into their secret information. So, I did. I went for it and I started from the literature of interest , going on to thoroughly describe the most critical financial situations and how they are regulated by our Central Government. Although the framework of interest was Italy, I wanted to bring evidence from other countries in order to qualitatively compare the way different political regimes and administrations faced the issue. Subsequently, I decided to apply a more quantitative approach by analysing the phenomena of structurally destabilized municipalities and L-T Restructurings by “zooming in” the data at my disposal. From Fondazione Cà Foscari (nota), I was able to detect cases of critical financial situations and I went forward in reproducing some relevant metrics. Findings were suggesting a slow-down in the filings for distress and rebalancing programmes starting last year, but this could be due to the lower expenses in public services offered to the citizen during lockdowns caused by the COVID-19 outbreak, or by National Funds and provisions that were granted to municipalities to face the consequences of the pandemic. To have a clearer picture of that, we will have to wait for further data to be gathered. Finally, I wanted to empirically test the impact of situations of financial criticalities on local public finances over time. If it is true that “actions mean more than words”, this was the case to prove it, and I managed to find interesting results, mainly implying a reduction in per-capita total expenditures and, typically, a reduction in the services offered to the inhabitants of a municipality in financial troubles. Not surprisingly, these findings match the expectations reported in the Introduction and a plausible answer to the question “are these changes temporary or permanent?” would be the top-quoted answer of all economists : ”it depends”. For now, I have proved the existence of a relationship between cases of financial distress and local public finances,

which turns out to be a relatively "unexplored" field in terms of empirical analysis. Hence, my research leaves the door open to several further improvements of the model, variation in the selection of data and of the entire methodology.

Figure 1: Timeline of the legislative acts regulating financial distress and Long-Term Restructuring cases

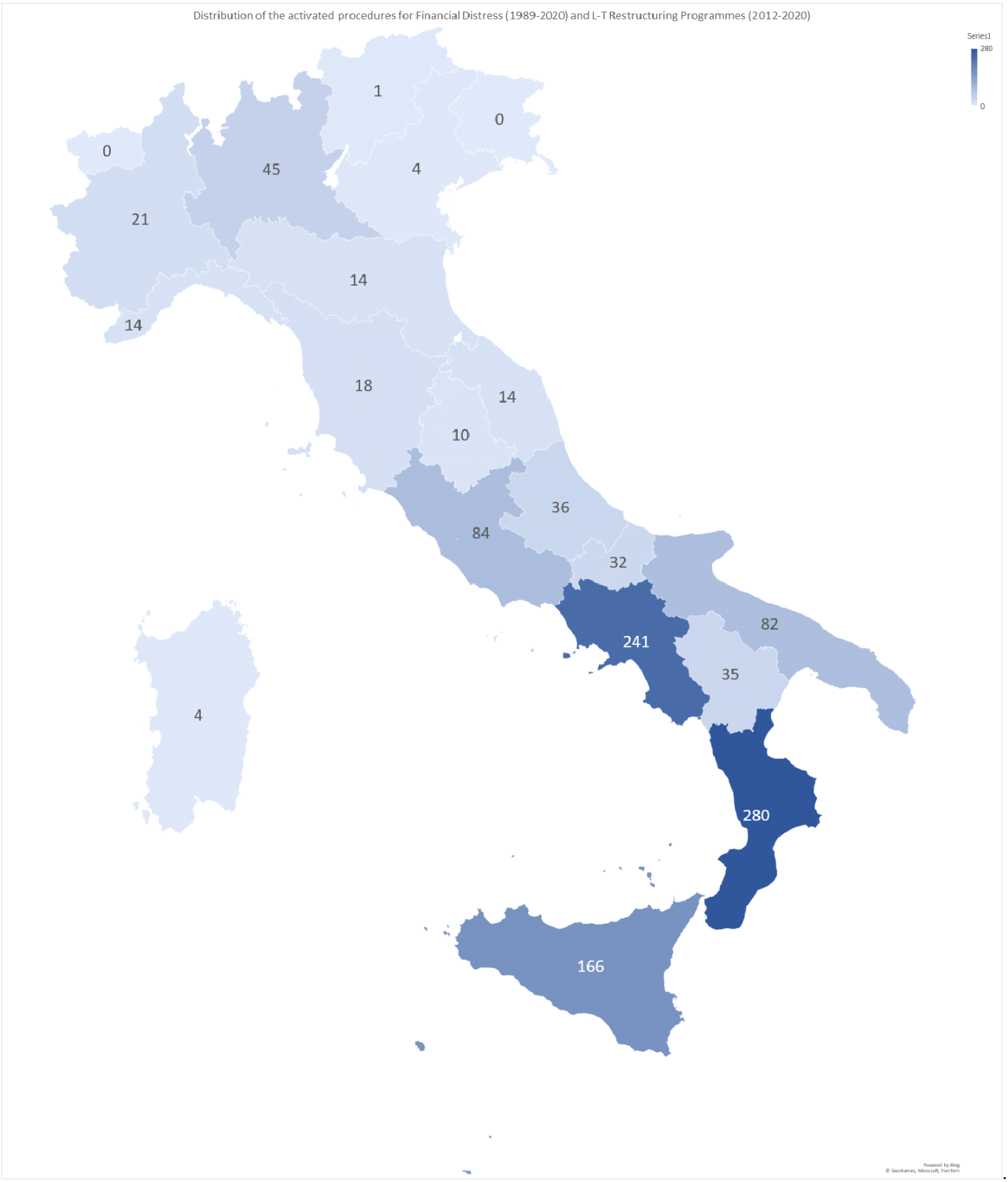


Figure 2: Distribution of Financial Distress (1989-2020)and Long-Term Restructuring Programme cases (2012-2020) by region

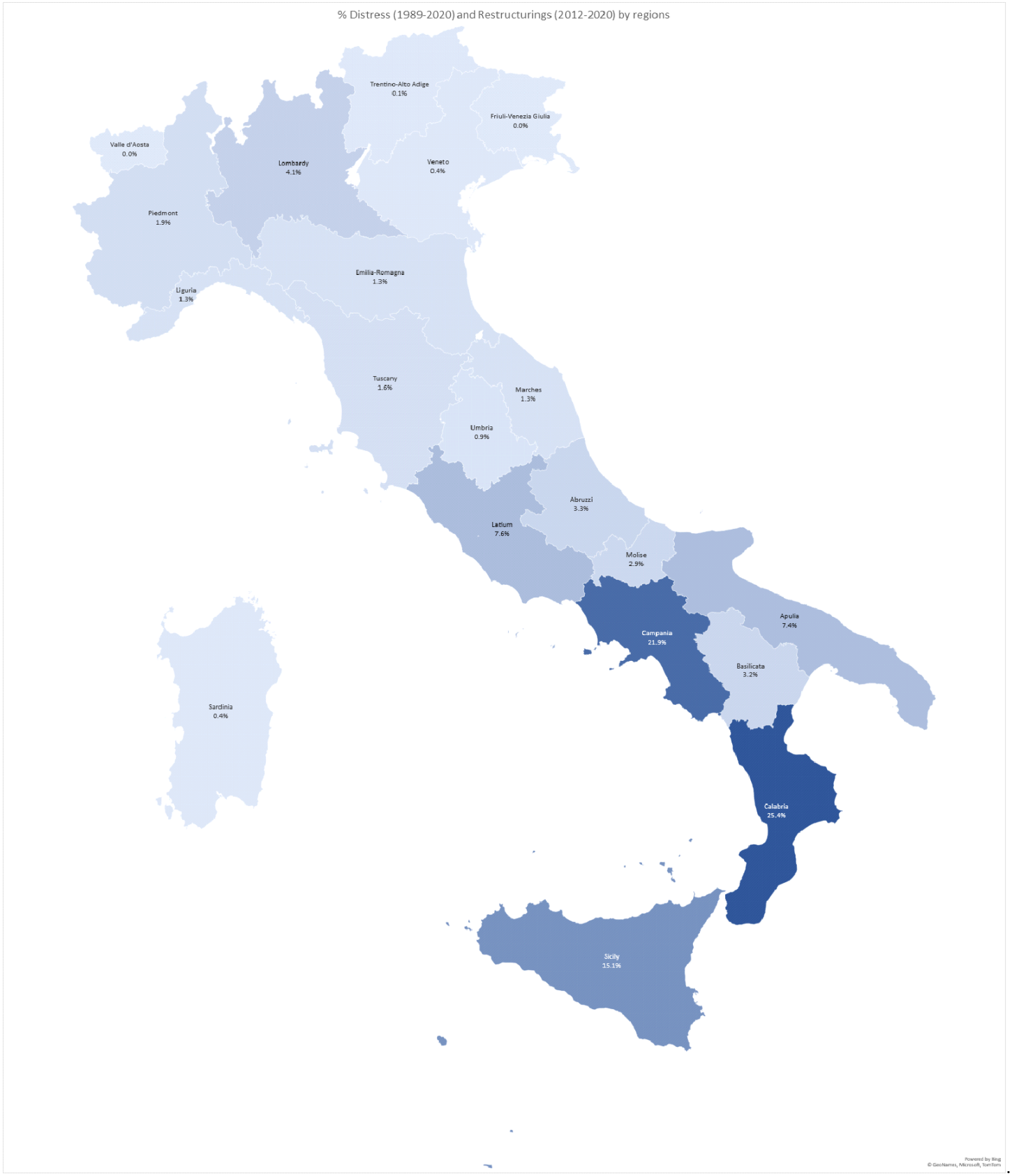
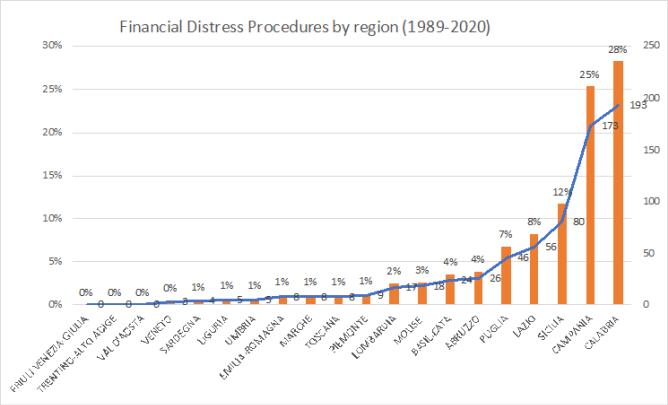
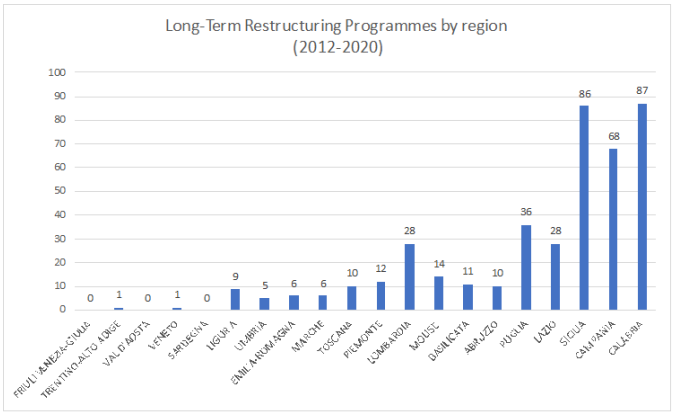


Figure 3: Share of Financial Distress (1989-2020)and Long-Term Restructuring Programme cases (2012-2020) by region

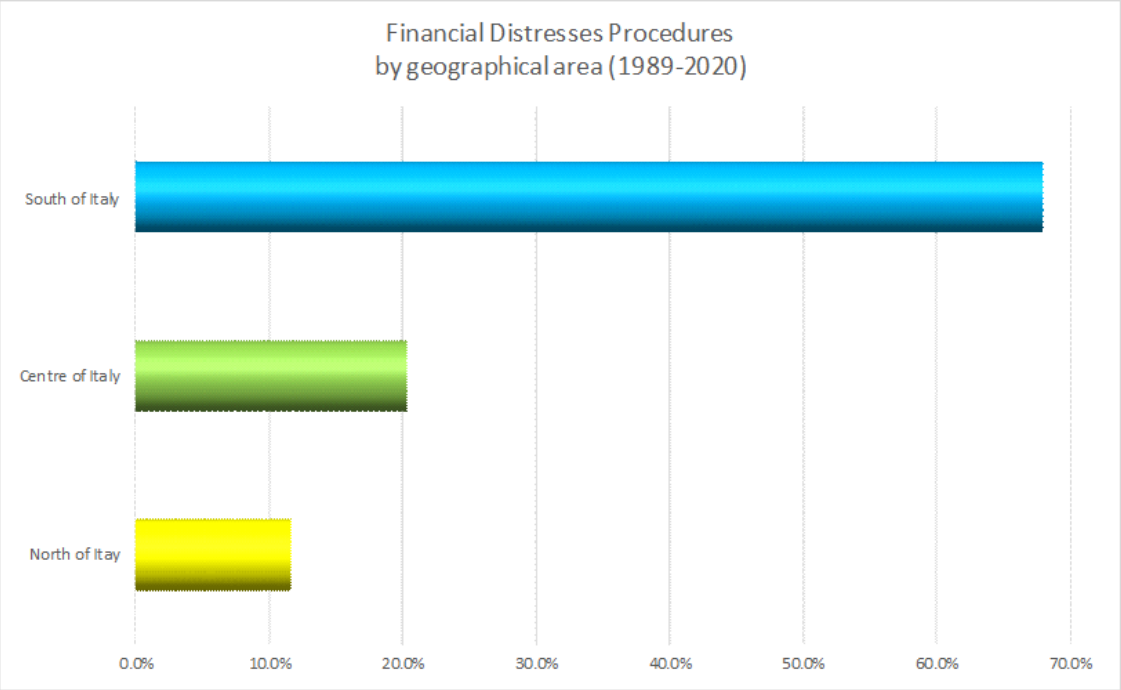


(a) Financial Distress cases (1989-2020) by region

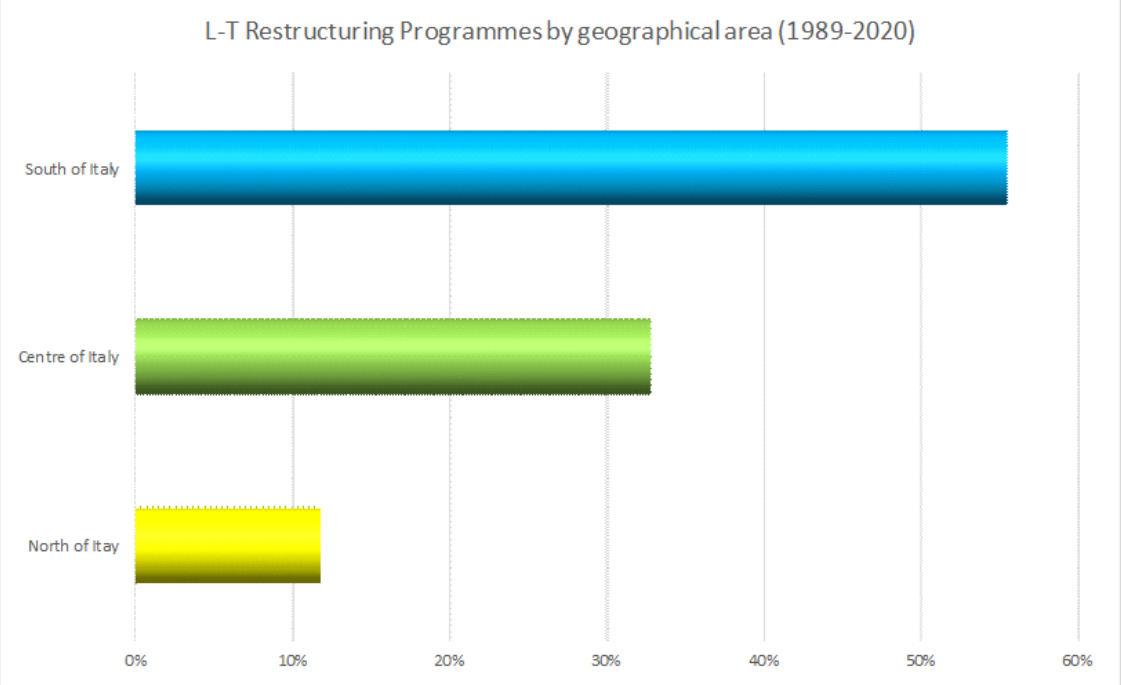


(b) Long-Term Restructuring Programme cases (2012-2020) by region

Figure 4: Distribution by region



(a) Share of Financial Distress cases (1989-2020) by geographical area



(b) Share of Long-Term Restructuring Programme cases (2012-2020) by geographical area

Figure 5: Distribution by geographical area

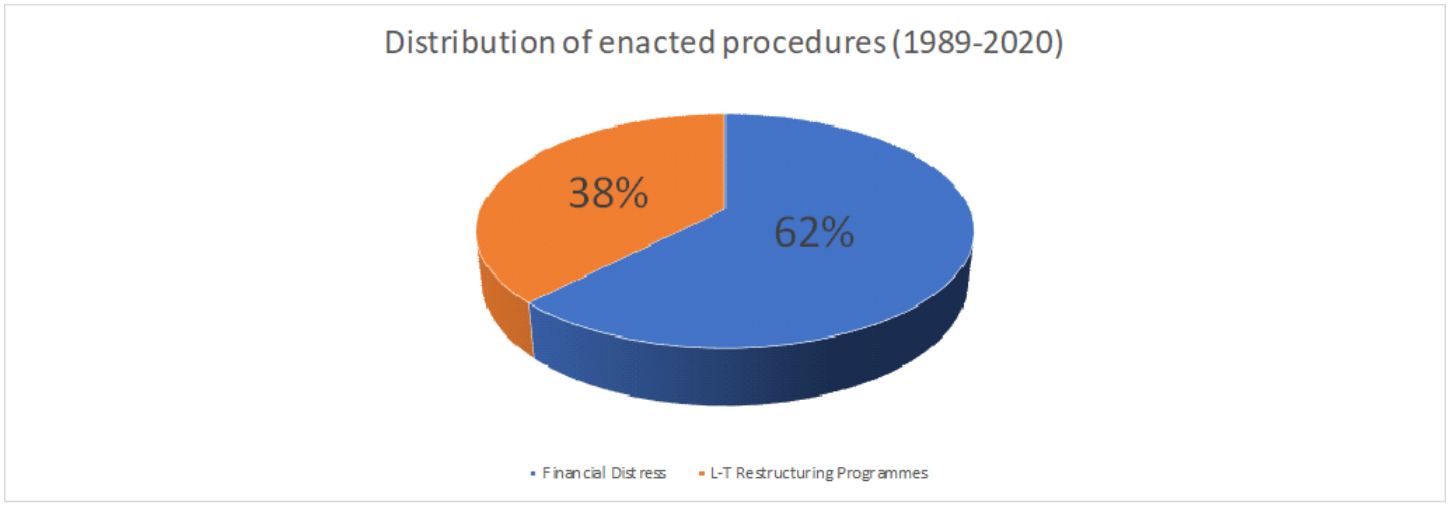


Figure 6: Distribution of total enacted procedure (Financial Distress (1989-2020) and Long-Term Restructuring Programme cases (2012-2020))

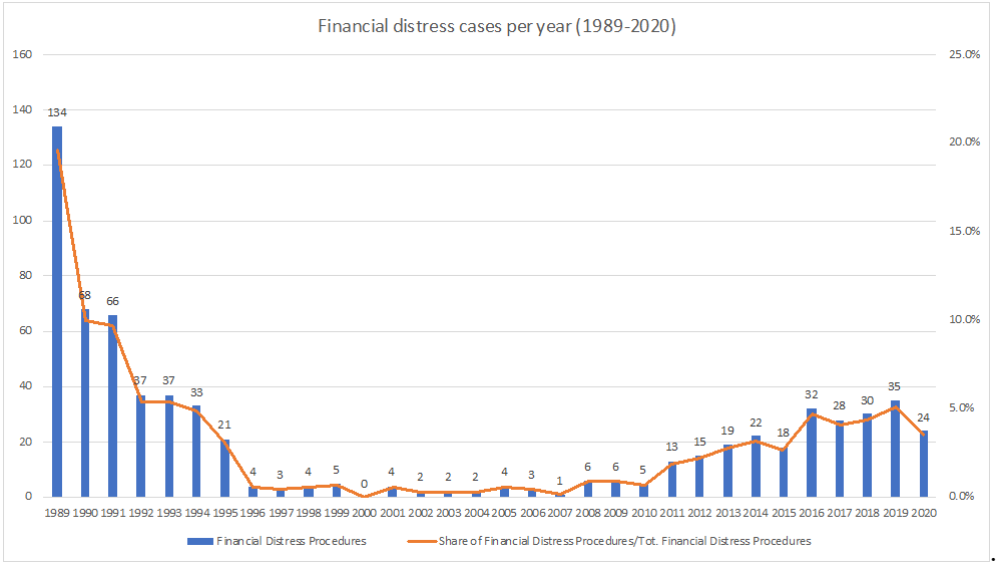
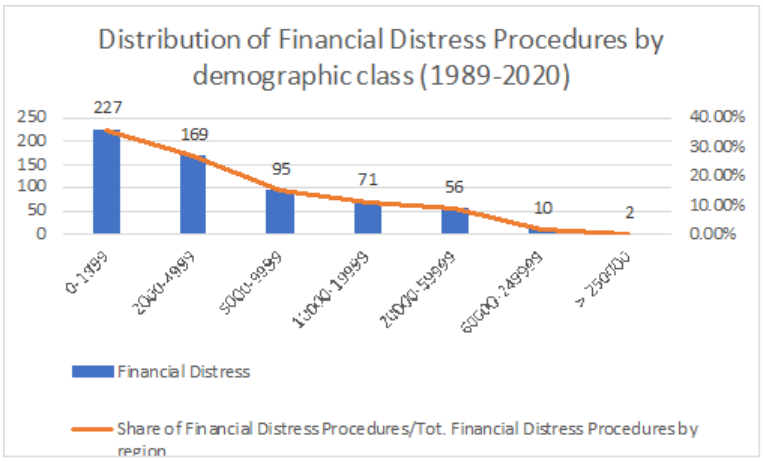
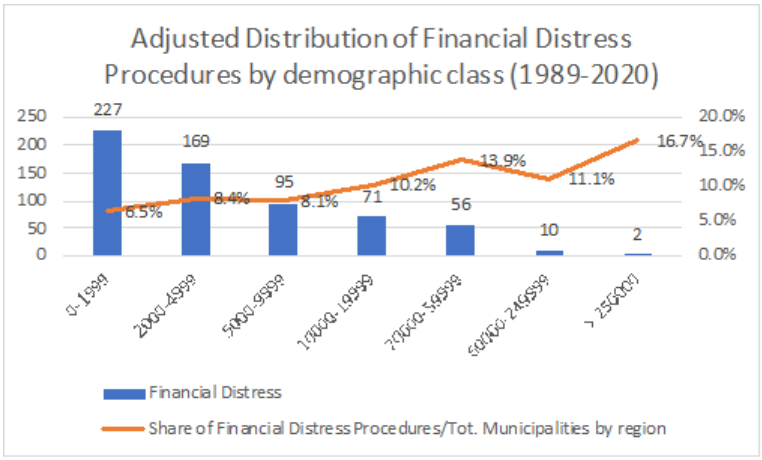


Figure 7: Annual distribution of Financial Distress cases



(a) Distribution of Financial Distress cases (1989-2020) by demographic class



(b) Adjsuted distribution of Financial Distress cases (1989-2020) by demographic class

Figure 8: Demographical distribution of Long-Term Restructuring Programmes

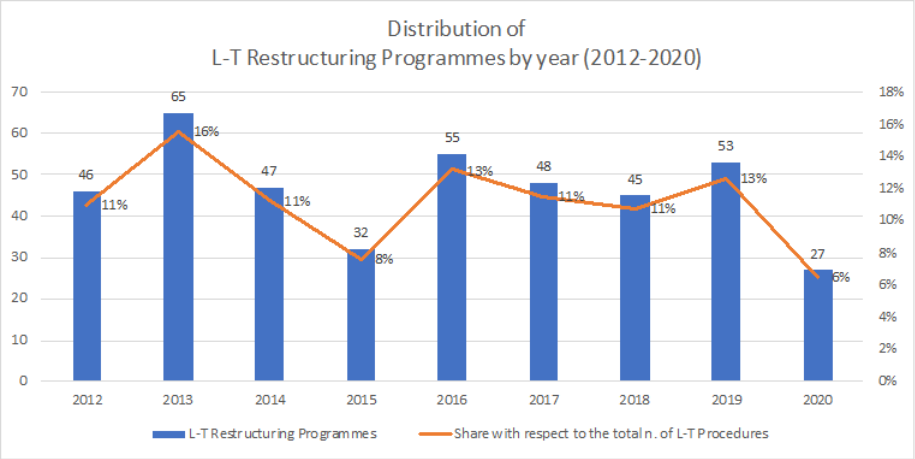


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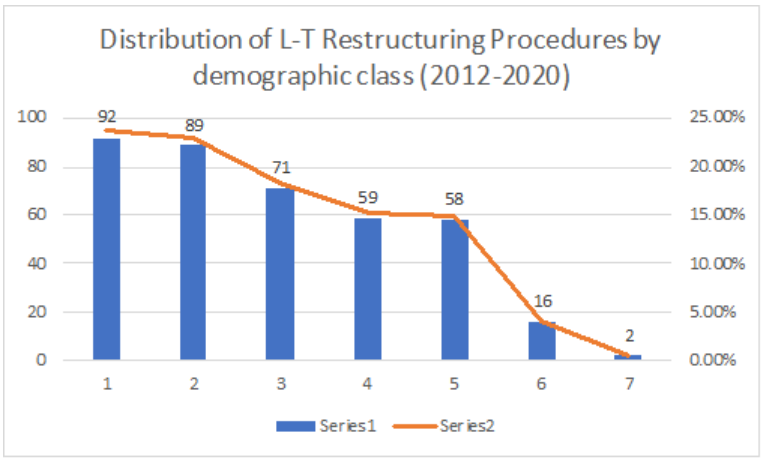
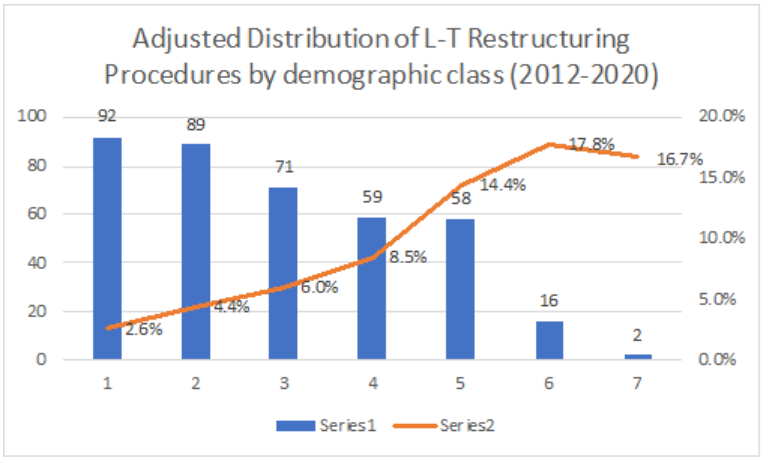
Figure 9: Annual distribution of Long-Term Restructuring Programmes (2012-2020)



(a) Distribution of Long-Term Restr. Programmes (2012-2020) by demographic class



(b) Adjsuted distribution of ong-Term Restr. Programmes (2012-2020) by demographic class

Figure 10: Demographical distribution of ong-Term Restr. Programmes

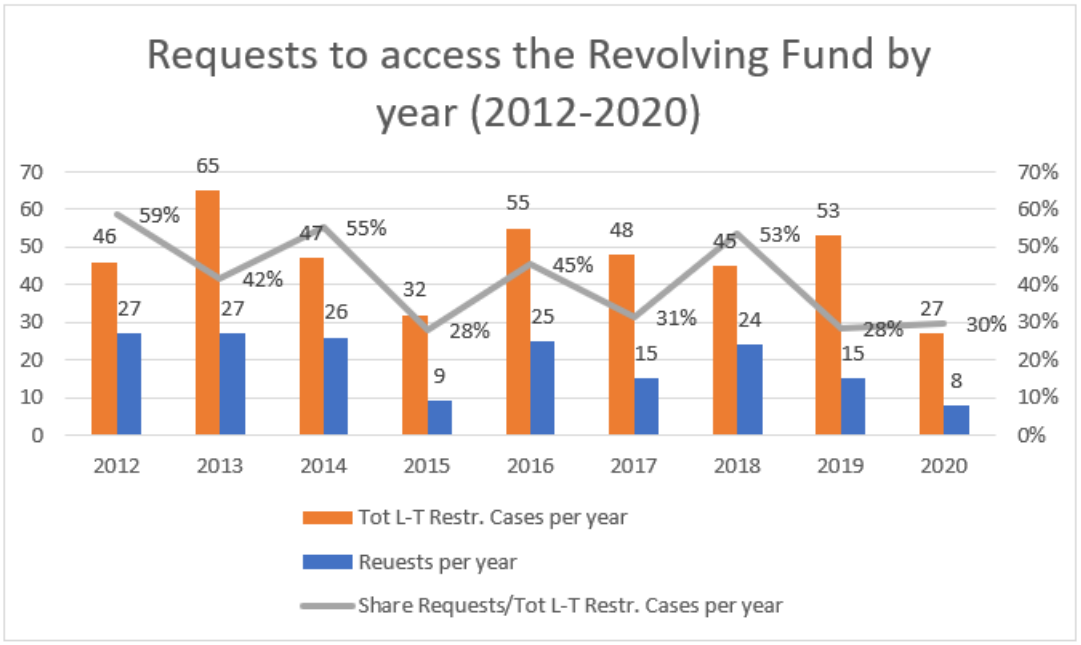


Figure 11: Requests of Revolving Fund access

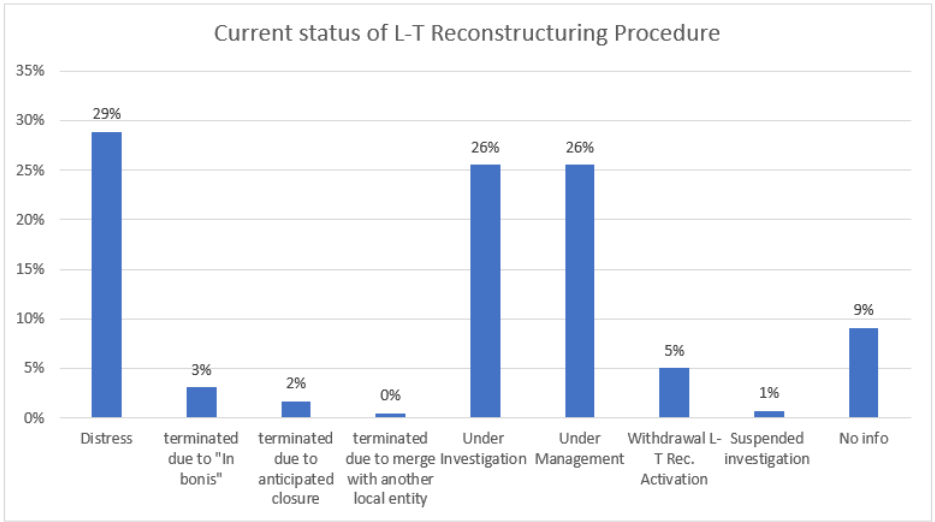


Figure 12: Current statuses of L-T Restructuring procedures

Table 1: Geographical location of recurrent municipalities in Financial Distress per year

	Basilicata	Calabria	Campania	Latium	Molise	Apulia	Sardinia	Sicily	Total
1989	0	8	2	0	0	0	0	2	12
1990	0	3	4	0	0	1	0	0	8
1991	0	0	5	0	1	1	0	0	7
1992	0	2	2	0	0	0	0	2	6
1993	0	3	2	2	0	0	0	1	8
1994	0	2	1	0	0	0	0	1	4
1995	1	1	0	0	0	0	0	0	2
1996	0	0	1	0	0	0	0	0	1
1997	0	0	0	0	0	0	0	0	0
1998	0	1	0	0	0	0	0	0	1
1999	0	0	0	0	0	0	0	0	0
2000	0	0	0	0	0	0	0	0	0
2001	0	0	0	0	0	0	0	0	0
2002	0	0	0	0	0	0	0	0	0
2003	0	0	0	0	0	0	0	0	0
2004	0	0	1	0	0	0	0	0	1
2005	0	0	0	1	0	0	0	0	1
2006	0	0	0	0	0	0	0	0	0
2007	0	0	0	0	0	0	0	0	0
2008	0	2	1	0	0	0	0	0	3
2009	0	0	0	0	1	0	0	0	1
2010	0	0	1	0	0	0	0	0	1
2011	0	1	3	0	0	0	0	0	4
2012	0	3	1	0	0	0	0	0	4
2013	0	1	1	0	0	0	0	2	4
2014	1	2	1	0	0	0	0	1	5
2015	0	2	3	0	0	0	0	1	6
2016	0	3	3	0	0	1	0	0	7
2017	0	3	2	2	0	1	0	1	9
2018	0	4	3	1	0	0	0	0	8
2019	0	2	1	0	0	0	0	0	3
2020	0	1	2	0	0	0	0	1	4
Total	**2**	**44**	**40**	**6**	**2**	**4**	**0**	**12**	**110**

Table 2: Geographical location of recurrent municipalities in Long-Term Restructuring Procedure per year

	Basilicata	**Calabria**	**Campania**	**Lombardy**	**Apulia**	**Sicily**	**Tuscany**	**Total**
2012	0	4	1	1	0	9	1	16
2013	1	6	1	0	1	4	0	13
2014	0	10	2	0	1	5	1	19
2015	1	3	0	0	0	1	0	5
2016	0	0	0	0	0	1	0	1
2017	0	0	0	0	0	1	0	1
2018	0	0	0	1	0	0	0	1
2019	0	1	1	0	0	1	0	3
2020	0	0	1	0	0	2	0	3
Total	**2**	**24**	**6**	**2**	**2**	**24**	**2**	**62**

Variable	***Obs***	***Mean***	***Std. Dev.***
Per Capita Expenditures			
Total Expenditure	35197	1522.2	22267.098
Capital Expenditure	35198	580.849	6661.696
Current Expenditure	35199	941.316	16227.453
Capital Expenditure (Share of Total)			
Administration	34965	0.165	0.232
Social Sector	34799	0.069	0.146
Construction and Waste Management	35075	0.332	0.299
Public transport and lighting	35014	0.22	0.245
Education	34706	0.104	0.185
Municipal Police	34269	0.005	0.028
Current Expenditure (Share of Total)			
Administration	35788	0.425	0.109
Social Sector	35788	0.081	0.067
Construction and Waste Management	35408	0.239	0.089
Public transport and lighting	34460	0.083	0.043
Education	33113	0.08	0.041
Municipal Police	35782	0.058	0.028
Municipal Revenues (collected/committed)			
Total Revenues	36059	0.549	0.213
Total Taxes	36048	0.603	0.191
Property Tax	32581	0.602	0.63
Waste Tax	31033	0.241	0.32

Table 3: Summary Statistics of per capita expenditures

	(1)	(2)	(3)
VARIABLES	(Total Expenditure)	(Total capital account expenditure)	(Total current account expenditure)
distress	-988.751***	-290.1**	-698.639***
	(359.876)	(128.1)	(257.839)
l_t_programme	-1,174.144**	-317.8**	-856.317**
	(494.127)	(159.8)	(353.521)
Constant	1,722.707***	639.1***	1,083.589***
	(73.996)	(25.44)	(53.103)
Observations	35,197	35,198	35,199
R-squared	0.049	0.053	0.049
Country FE	YES	YES	YES
Year FE	YES	YES	YES

Table 4: The impact of Financial Distress & L-T Restructurings on total per capita spending

Note: Clustered standard errors at municipality level in parenthesi, $***$ p<0.01 $**$ p<0.05 $*$ p<0.1. The analysis compares the spending categories of local governments that did not initiate any financial distress procedure with governments that did, before and after the activation of a procedure. The variables distress and *l_t_programme* are two dummies that equal 1 during the period in which a local government is in either one of the two procedures and 0 otherwise. Controls: industry employment tertiary education degree-holders municipal population and unemployment rate. Sample : municipalities from the regions of Apulia ,Calabria, Campania, and Sicily

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	(Administration)	(Social sector)	(Construction and waste management)	(Public transport and lighting)	(Public Education)	(Local Police)
distress	-0.031	0.01	0.037	0.005	-0.000	0.000
	(0.019)	(0.01)	(0.024)	(0.016)	(0.014)	(0.002)
l_t_programme	-0.008	0.01	0.003	0.019	-0.009	-0.002
	(0.013)	(0.01)	(0.015)	(0.013)	(0.011)	(0.002)
Constant	0.171***	0.07***	0.326***	0.218***	0.105***	0.005***
	(0.003)	(0.00)	(0.004)	(0.003)	(0.002)	(0.000)
Observations	34,965	34,799	35,075	35,014	34,706	34,269
R-squared	0.240	0.13	0.198	0.156	0.142	0.128
Country FE	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES

Table 5: The impact of Financial Distress & L-T Restructurings on capital spending categories

Note: Clustered standard errors at municipality level in parenthesis, *** p<0.01, ** p<0.05, * p<0.1. The analysis compares capital account spending categories of local governments that did not initiate any financial distress procedure with governments that did, before and after the activation of a procedure. The independent variables "distress" and *l_t_programme* are two dummy variables that equal 1 during the period in which a local government is in either one of the two procedures and 0 otherwise. Controls: industry employment tertiary education degree-holders municipal population and unemployment rate. Spending components calculated as share of total spending. Sample: municipalities from the regions of Apulia Calabria Campania and Sicily.

	(1)	(2)	(3)	(4)	(5)	(6)
VARIABLES	(Administration)	(Social sector)	(Construction and waste management)	(Public transport and lighting)	(Public Education)	(Local Police)
distress	0.004	-0.01	0.019***	-0.003	-0.003	-0.001
	(0.008)	(0.01)	(0.006)	(0.004)	(0.002)	(0.002)
l_t_programme	0.001	-0.00	0.019***	-0.002	-0.005***	0.001
	(0.005)	(0.00)	(0.005)	(0.003)	(0.001)	(0.001)
Constant	0.424***	0.08***	0.235***	0.083***	0.080***	0.058***
	(0.001)	(0.00)	(0.001)	(0.001)	(0.000)	(0.000)
Observations	35,788	35,788	35,408	34,460	33,113	35,782
R-squared	0.563	0.56	0.708	0.612	0.794	0.581
Country FE	YES	YES	YES	YES	YES	YES
Year FE	YES	YES	YES	YES	YES	YES

Table 6: The impact of Financial Distress & Long-Term Restructurings on current spending categories

Note: Clustered standard errors at municipality level in parenthesis, *** p<0.01, ** p<0.05, * p<0.1. The analysis compares current account spending categories of local governments that did not initiate any financial distress procedure with governments that did, before and after the activation of a procedure. The independent variables "distress" and *l_t_programme* are two dummies that equal 1 during the period in which a local government is in either one of the two procedures and 0 otherwise. Controls: industry employment tertiary education degree-holders municipal population and unemployment rate. Spending components calculated as share of total spending. Sample : municipalities from the regions of Apulia, Calabria, Campania, and Sicily.

	(1)	(2)	(3)	(4)
VARIABLES	(Revenues Efficiency)	(Taxes Efficiency)	(Property Tax Efficiency)	(Waste Tax Efficiecy)
distress	0.034***	-0.01	0.043*	-0.066***
	(0.013)	(0.01)	(0.025)	(0.023)
l_t_programme	-0.052***	-0.01*	-0.062	-0.062***
	(0.009)	(0.01)	(0.039)	(0.020)
Observations	36,059	36,048	32,581	31,033
R-squared	0.628	0.36	0.135	0.490
Country FE	YES	YES	YES	YES
Year FE	YES	YES	YES	YES

Table 7: The impact of Financial Distress and Long-Term Restructurings on local revenues collection

Note: Clustered standard errors at municipality level in parenthesis, *** p<0.01, ** p<0.05, * p<0.1. The analysis compares the revenue collection capability of local governments that did not initiate any financial distress procedure with governments that did, before and after the activation of a procedure. The independent variables "distress" and *l_t_programme* are two dummies that equal 1 during the period in which a local government is in either one of the two procedures, and 0 otherwise. Controls: industry employment tertiary education degree-holders municipal population and unemployment rate. Sample: municipalities from the regions of Apulia, Calabria, Campania, and Sicily.

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