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# Administrative Continuity: Enhancer or Constraint for Regional Governments' Efficiency?

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## Abstract

This work demonstrates that, in Italian regions, administrative continuity is an enhancer of regional governments' efficiency when it is coupled by a certain quality of social capital in case of both long and short term policies. The literature on administrative continuity explains the positive and negative effects on the performance of the regional governments (e.g. Olson 1982; Milio 2008), but it does not consider and specify the socio-cultural factors that can explain why the administrative continuity may be an enhancer or a constraint of the performance of the regional government. Here these relationships are analysed, assessing whether administrative continuity may foster political patronage when *bonding* social capital is prevalent compared to *bridging* social capital. This may be due to an evaluation of politicians based on particular interests of particular groups, rather than on common interests (Nannicini et al. 2010). This standpoint is confirmed in the case of long term policies (health care mobility) while there is no evidence of this in case of short term policies (absorption of EU structural funds). While recently the focus has been on the analysis of the efficient institutions at Italian provincial level through cross-section analysis (Giordano and Tommasino 2011), this study considers Italian regions (NUTS 2) as unit of analysis through panel data covering a time frame of seventeen years (1995-2011).

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## **Acronyms**

AC:Administrative Continuity

AE :Administrative Efficiency

SC:Social Capital

SF :Structural Funds

# 1 Introduction

This research aims to analyse the role and the effects of administrative continuity (AC) on regional administrative efficiency (AE), given different levels and qualities of social capital (SC) (bonding and bridging) in Italian regions (NUTS 2). This work focuses on the regional level of government, considered the most suitable unit of analysis given the research purposes. The regional level of government has larger powers and resources than other local governments<sup>1</sup>. Consequently, analysing the drivers of regional governments' efficiency has several political implications, since a large number of regional policies are exclusively or mainly managed by regional governments (e.g. health care).

As mentioned, the analysis considers two different concepts of SC: bonding SC represents the relationship within groups or communities, bridging SC indicates the relationship between different communities or groups of people (Storper, 2005). Capturing the relational aspects of SC allows to assess social interactions among people, which influence their culture dynamically. This overcomes the limitations caused by cultural path dependency (Trigilia, 2011). An indicator of *Civiness* is used as *proxy* of bridging SC. This variable can explain the degree of openness in the region, that is the degree of interrelation between groups of people. This represents a favourable condition for the coordination of the economic dynamics and for the construction of a high level civil society (Putnam et al., 1993; Storper, 2005) .

The literature on administrative continuity explains the positive and negative effects of continuity on the performance of the regional governments, but it does not consider and specify the socio-cultural factors that can explain why continuity may be an enhancer or a constraint of the efficiency of the regional government. This represents a relevant limitation, which this work is trying to overcome.

The literature on administrative continuity (see section 2.2) includes two main lines of thought. On the one hand, there are several authors suggesting that the turnover of political administrators tackle some constraints of the governments' performances. A high turnover suggests meritocracy and competition because it shows that incompetent administrators have to take responsibility and leave office (Ferejohn, 1986). Olson (1982) suggests that a low turnover may lead to entrenchment of distributive coalitions, which ultimately interfere with

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<sup>1</sup>See Title V of Italian Constitution, <http://www.governo.it/Governo/Costituzione>.

policy-making. Changes in cabinet members are considered to prevent the creation of little feudal areas within the government (Buono de Mesquita, 2000). According to Feiock and Strema (1998) government turnover is beneficial because it brings in different skills and expertise, and represents a pressure on managers to work harder.

On the other hand, some studies provide evidences that AC improves some dimensions of the performances of regional governments. Milio (2008), analysing the absorption of Structural Funds in a sample of Italian regions, looks at the benefits of having a low turnover of regional administrators, which acquire a stronger specialization and a global understanding of the problems they are facing. This perspective also analyses the benefits of developing a coherent and consistent long term strategy, driven by AC.

Emphasizing the similarities in the literature on the linkages between SC and AE, it is possible to suggest that continuity is enabled as a positive factor for AE when a high SC is found, in particular for common good oriented policies. Instead, the continuity of leadership, where low SC is found, would be negative for common needs. In fact, in this case, there is less control on bad practices of politicians, which in turn are conducive to the consolidation of political patronage already in place for the absence of SC. In other words, continuity may trigger both a virtuous or vicious circle, depending on the levels and qualities of SC embedded in the region.

This paper is structured as follows: after the introduction, the second section concerns an overview of the literature on SC, AE and AC. Italy is traditionally the geographical focus of SC literature because of the particular historical conditions of northern-southern dualism<sup>2</sup>. The third section focuses on the research questions and on discussion and description of the variables selected for the analysis. Variables are carefully selected according to previous works on SC, AE and AC. The methodology and the description of the model used are explained in the fourth section. The model includes panel data over a time frame of seventeen years (1995-2011) for 21 Italian regions<sup>3</sup>. The construction of indicators is determined by the particular features of each variable. Moreover, the problem of endogeneity is accounted by using time lags. The fifth section is devoted to the analysis of results. This section provides evidence for the main aim of this research, since it is verified whether AC has a positive or a negative impact on AE,

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<sup>2</sup>One of the landmarks for empirical studies on SC is the research conducted by Putnam et al. (1993) on Italian regions.

<sup>3</sup>Autonomous provinces of Bolzano and Trento are considered instead of Trentino Alto Adige region.

and more in depth, in which social conditions it may assume positive or negative value. Since the analysis makes use of several indicators and variables, both general answers to research questions and particular insights are faced out. An important differentiation is made between the effect of AC on long-term and short-term policies. Furthermore, a subsection is devoted to Southern regions, since the results implications are contradicting partially the current literature. Finally, the sixth section summarizes the research, providing answers to the research questions, underlying the political implications of the analysis' outcomes.

## 2 Regional Administrative Efficiency and Social Capital in Italian Regions: Theory

### 2.1 Social Capital

A considerable amount of literature has been published on SC, providing many definitions of this concept. The *collectivist* (Putnam 1993, 1996, 2000) approach defines SC as a factor present only within an organized society. This approach draws on the work of the American sociologist Robert D. Putnam, identifying SC as 'trust, norms that regulate it, the networks of civic associations, elements that improve the efficiency of the organization's efforts in promoting social mutual agreement' (Putnam, 1993: 196). Other scholars define SC as the degree of trust in social relations: Fukuyama argues that SC is a resource coming from the prevalence of trust in society or in a part of it (Fukuyama, 1996: 40). The author also highlights that SC may be defined as trust and the expectation that arises within a community, a predictable, fair and cooperative, standards based on commonly shared by its members (*ibid.*). In line with this approach, Narayan and Pritchett propose a definition of SC based on the 'quantity and quality of life membership and rules related to it' (Narayan and Pritchett, 1999: 872). Finally, the World Bank points out that SC refers to institutions, relationships, and norms shaping the quality and quantity of social interactions of society (World Bank, 2004).

A second approach considers the centrality of the individual. In this perspective, social relationships have value only as functional elements to achieve individual goals (Bordieu, 1980, Coleman, 1990, Granovetter, 1985). Coleman defines SC as 'the value of those aspects of social structure as resources that can be used by actors to achieve their interests' (Coleman, 1990:

305). Thus, SC is a factor that an individual can add to financial capital and to human capital for own benefits. From this standpoint the benefits deriving from human relations not necessarily produce positive externalities. Instead, these relations may trigger disadvantages for those which are excluded from them.

The choice made in this work is to use a *collectivist* approach to SC, taking broadly into account the theoretical assumptions of Putnam et al. (1993). First, this perspective is coherent with the literature on the relations between SC and AE. Second, this approach has the strength of clarity and simplicity of the explanation of the SC-AE relationship, since positive human relations are considered a driver of AE (see Putnam et al. 1993, Nannicini et al. 2010, Giordano and Tommasino 2011). Finally, since this perspective considers social relations among individuals, embedded in a particular geographical location, it fits with the research purposes of this work.

In particular, the literature on institutional performance and public sector efficiency (e.g. Giordano and Tommasino 2011), adopts the concept of SC related to the *civicness* because of its embeddedness and because it is relatively simpler to assess in a comparative study, given that it may be measured by *proxies* equally significant for a large group of regions of the same country. These studies underline a close relation between SC and AE usually explained by monofactorial factors instead of a number of embedded local conditions: Putnam et al. (2000) consider the historical factor, Giordano and Tommasino (2011) focus on political participation, while Nannicini et al. (2010) on political accountability.

The contribution of Putnam et al. (1993) provides two fundamental conclusions for the Italian case: the lower quality of regional institutions in Southern Italy depends on the low level of SC. In particular, a gap concerning the presence of 'civic community' (civicness) is observable between southern and northern regions. This gap is considered to be one of the main factors causing the diversity in quality of regional governance and, ultimately, explaining the relatively low economic development in Southern Italian regions. According to Putnam et al. (1993), the differences in the presence of SC is explained by diverse historical paths. The southern regions are characterized by a deficiency of SC since they were part of the Kingdom of Two Sicilies (characterised by large landed estates), before the Italian unification in 1861. The Northern

regions have developed a very high sense of civic community because of the flourishing age of the municipalities (XI century). Therefore, following this interpretation, the different history of Italian regions provokes different levels of institutional performance (*ibid.*).

However, this thesis has been strongly criticized by scholars of local development. As Viesti (2009:67) states:

*'Although these studies have left an intimate and inescapable mark for every job you intend to treat the Italian subject, after all these years should not only refer to more recent data, but above all find a way out of the narrow determinism of which Putnam's theory is flawed'*

Finally, SC at local level assumes an extreme importance for generating public goods when policies are elaborated and managed at local level (Mauro and Pigliaru, 2011). This explains in part the growth divergence between Northern and Southern Italian regions from the seventies, since the difference in the levels of SC between the two areas is wide.

## **2.2 Administrative efficiency and Administrative Continuity: theory and empirical evidences**

Administrative Efficiency is a concept used by Putnam et al. (1993) to study the relations between SC (as civiness) and quality of formal institutions. The authors label the concept of institutional performance as institutional effectiveness, conducting an evaluation of the policy processes, pronouncements and implementation. Thus, an index considering the degree of innovativeness in the legislation and in the economic policy instruments was created. More recently, Cartocci (2007) and Milio (2008) have considered, respectively, health care mobility and the levels of expenditure of EU Structural Funds as appropriate indicators to evaluate regional formal institutions. This research builds on these contributions, using these indicators as strictly dependent from regional government policies, with the advantage to show, with limited drawbacks, the policy outcomes of regional governments in relation with AC and qualities of SC.

A number of recent studies focused on the relations between efficiency of the public sector and aspects of social life in Italian provinces (NUTS 3). A relevant study in this field has been conducted by two researchers of Bank of Italy, Giordano and Tommasino (2012). The authors

highlight the relation between the efficiency of the Italian public sector and both *political participation* and *generalized morality*. In their study, the authors identify indicators in the areas of public health, public education, civil justice, childcare, waste collection, using a method based on Data Envelopment Analysis (DEA), to measure public administration efficiency. The *political participation* is measured as the number of newspapers sold in provinces (building on previous work by Guiso, Sapienza and Zingales 2004), the elections turn-out in case of referendum in provinces and the results of surveys about the personal interests in political affairs; the *generalized morality* is measured as the number of blood donations per capita in provinces (*ibid.*) and the results of a survey on the use of public services and on behavior (such as the behavior in case of accidents or when finding money belonging to other people). The results of this study find a large causal relation between the public administration efficiency and the level of political participation, while there is no evidence of a causal relationship between generalized morality and the efficiency in supplying public sector services.

The research conducted by Cartocci (2007) tries to confirm the relationship between SC and AE at provincial level. Cartocci uses health care mobility as an indicator of institutional performance. As the author highlights, 'health care is the first budget item for regional governments and, secondly, the quality of health services is a source of legitimacy and trust of citizens towards the formal institutions' (Cartocci 2007: 103). In order to measure social capital, Cartocci considers four variables:

- diffusion of newspapers;
- level of election participation;
- diffusion of associations;
- diffusion of blood donation.

The first two variables capture the relationships between citizens and political community, with a differentiation between a form of visible participation (elections' turn out) and a non-visible form (newspapers' readers) (*ibid.*). The last two indicators capture the diffusion of elective and formalized networks. These are an expression of the diffusion of an obligation towards other people, and the opportunities to accede to a social network, beyond basic links. The importance of these variables is the capacity to include the donation dimension, or in other words, the availability to give to others time, energy or blood. This dimension is considered a step

forward the simple obligation towards others (Cartocci 2007: 57).

Studying the causal relationship between SC and innovative performance of Italian provinces, Crescenzi et al. (2011) find out that not only the *quantity* of SC is important in exploiting the innovative strengths of a territory but also its *quality*. In particular, the bridging SC is the key for provincial innovative performance in the Italian case. The bridging SC is measured as blood donations (number of blood donations per 100 residents) and voluntary associations (number of voluntary associations per square Km), while the bonding SC is measured as weekly lunch (number of families having lunch at least once per week with relatives and close friends per 100 households) and, finally, adult children (number of young adult individuals living with parents per 100 young adults).

Nannicini et al. (2010) show that, in Italian provinces featuring a high level of SC (measured as intensity of blood donation), a community shares the rule of not confirming in office a politician who has made mistakes. As a consequence, where SC is high, politicians are discouraged from being corrupted. SC accounts in different ways on the relationship between citizens and politicians, and the selection of the ruling class. According to the authors, if a politician develops his political experience in a province with high SC, brings in his political career those rules of good behavior that are always taken as a reference. On the contrary, an environment with low SC may form political representatives which reflect this feature, and behave more opportunistically. From the voters' perspective, if they do not share the idea of policy linked to the needs of the community but favor personal needs, then they will be more willing to decide their vote regardless the management of public goods by political representatives (Nannicini et al., 2010). This contribution, therefore, confirms that the lower SC is present, the more political patronage is found.

As mentioned in the introduction, the turnover of political administrators is widely analysed in the literature: on the one hand, those scholars who think that it means stability and efficiency, on the other those scholars who believe that it may lead to political patronage and inefficiency. Ferejohn (1986) suggests that changes of Presidents are indicative of meritocracy and competition. However, the stability of regional Presidents during the entire mandate can ensure the continuity of the multi-annual programs with respect to the situation in which the presidents are constantly changing. Every president has a different strategy compared to the

previous one and this often creates incoherence and inconsistency in long-term development policies. A long term policy cycle requires a number of years to be implemented, from conception to realisation, while a president lasting a year or two can only follow short-term issues (Milio 2008). According to Bueno de Mesquita (2000), the longevity in office typically reflects institutional arrangements that reward political patronage and corruption. In hierarchical institutional arrangements each member of the government is responsible for a specific field of administration and reports directly to the president. If a councilor thinks to remain in office for a short period, the commitment for long-term programs would be a negative priority, while opting for results in the short term would be more likely (Milio 2008). Piffner (1987) and Milio (2008) support the idea that a considerable amount of time is needed to efficiently manage the operations of high-level positions in complex organizations. Therefore, a public administrator can work with maximum efficiency only after acquiring some experience in office. Furthermore, a short term mandate encourages short term thinking in terms of political career avoiding the research of long term results. Acemoglu and Robinson (2002) defend the idea that fair competition between political parties is desirable to maintain an elected regional President under pressure to improve policy and government performance. However, stable political coalitions represent, for the regional presidency, a guarantee to perform its tasks without constant political dangers, without the fear to be replaced due to a lack of political support (Milio 2008).

### **3 Hypothesis and Data Description**

The research hypothesis of this work builds on the contrasting ideas on the effects of AC on government efficiency, highlighted by the literature analysed in the previous sections. In this context, the evidence of Nannicini et al. (2010) is used to overcome the dichotomy on the (positive or negative) effects of AC.

Therefore, the hypothesis of this work is that AC is an enhancer of the AE when it is coupled by the bridging SC or, at least, when there is a balance between bonding and bridging SC. As shown above, the literature on the relationship between quality of civil society and quality of politicians (Nannicini 2010) revealed that the quality of the regional civil society has an effect on the way in which the politicians are selected, and in the way they are assessed in case of elections. Therefore, AC may foster the system of political patronage if the bonding

SC is prevalent compared to the bridging SC. In this case, the AC would reveal a negative effect on the regional government efficiency. As alternative hypothesis, regional government efficiency is not improved by AC when it is coupled by the bridging SC. In this case, AC may be an enhancer or a constraint of the performance of the regional government, regardless the quality of SC prevailing in the region. In other words, the analysed mechanisms are those concerning the differences of the impact of administrative continuity in different social contexts. Analysing in detail the case of Italy, the research question is whether administrative continuity has positive impacts both in Lombardia and in Calabria (respectively one of the most and least developed regions of Italy). These two regions differ not only in terms of the economic contexts and wealth levels, but also for the relations among people and the ways in which people tend to cooperate (Putnam et al. 1993; Cartocci 2007). Hence, the research question focuses on the understanding of what are the consequences of AC in diversified contexts both in terms of cooperation (trust), and in terms of the concept of public goods (private needs vs. common goods), leading to different social regulations of the regional political scenario.

The annual turnover of regional Presidents (*presidenti delle giunte regionali*) and councillors (*assessori*) in regional governments is used in the analysis as an indicator of AC. This variable is considered as the main element for assessing the political and strategic scenario in a region, beyond the capabilities of single administrators. Data has been extracted from the 'register of directors' by the Italian Ministry of Interior (*anagrafe degli amministratori*<sup>4</sup>). The appendix reports the classification of regions depending on the average of the annual number of changes of regional councillors and presidents on the total number of the regional councillors and presidents in charge between 1989 and 2011 in Italian regions, and also the continuity index depending on the same indicator between 1995 and 2011.

The annual turnover is the main variable of the analysis, and it is used in different ways to evaluate AE. Two AE variables are selected, taking into account: first, the relevance for citizens; second, the reflection of competencies of regional governments (article 117 of Italian Constitution). Subject to data availability, the indicators reflecting these variables and responding to the above-mentioned criteria are those of inter-regional health care mobility and the absorption of European Structural Funds. While in the first case dummies are used to evaluate the level of

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<sup>4</sup>[www.amministratori.interno.it](http://www.amministratori.interno.it)

continuity of the Italian regions between 1995 and 2011, in the second case it is used an annual Index taking values from 0 to 10. This choice is justified by the assumption that the health care system is the result of a long-term policy, while the absorption of European Structural Funds is more linked to short-term policies.

Health care mobility among Italian regions is considered as a powerful *proxy* for AE at regional level. As pointed out by Cartocci (2007), the devolution process made the regional health care systems as the main budget items for regional governments. Consequently, the performances in this sector represent a priority for regional governments. Furthermore, health care has an extreme social importance, and citizens are very careful about the right to receive appropriate health care treatment (Eurobarometer 2010). Furthermore, local health care managers are chosen by regional governments through political decisions. Consequently, the decision making process in health care is a political process (Cartocci 2007). However, people have the possibility to choose whether being treated in their own region or in other ones. Thus, the decision of people to get treatment in other regions may be considered as an indicator of efficiency of the regional institutions. People would opt for a transfer (which may be difficult and expensive) if the local health care structures are insufficient or inefficient (*ibid.*). For these reasons, health care mobility is considered as an appropriate *proxy* of efficiency of regional governments<sup>5</sup>.

Every year regional governments negotiate amongst each other the budget for health care services offered to patients moving from other regions, since each regional government compensates the costs for the treatments provided, by other regional health care systems, to its own citizens (Regione Puglia 2010). This work considers the monetary balance between revenues from other regional governments and costs to compensate to other regional governments for health care services. As already mentioned, health care is the largest item of regional public expenditure and it is the most important public service administrated by regional governments. Moreover, the Italian legislation gives a particular importance to the respect of financial plans in health care services, both for rewarding efficient and virtuous regions and for sanctioning the less efficient ones. In case of inefficiencies, the regional government can be replaced by national authorities in the management of health care services (Ministero dell'Economia e delle Finanze 2009). As said above, data on health care is related to the matrix of the amount for which

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<sup>5</sup>Data are reported in the Appendix.

each region is creditor and the amount for which each region is debtor towards others. Data has been obtained from the Umbria region statistical office.

Structural Funds (ERDF and ESF<sup>6</sup>) co-finance national and regional policy interventions in the areas of infrastructure, innovation and entrepreneurship, with programming periods of seven years (EC 2007). The implementation of the funds is managed both at national and at regional level. Each regional government in Italy manages a regional operational programme where the main development goals in relation to the funds are stressed<sup>7</sup>. Two kinds of data have been used in order to create an indicator on the absorption of European Structural Funds: data on allocated ERDF and ESF funds that the European Commission has negotiated with the Italian Government and Italian regions (decided structural funds) and data on SF that regions have actually spent (paid or absorbed). Since each region has a yearly allocation which, if not entirely spent, can be transferred to the following year, it is possible that a region has a level of payments above the yearly allocation. Moreover, since funds can be paid after the end of a programming period, a region can manage at the same time funds belonging to different and overlapping programmes<sup>8</sup>. For these reasons the choice is to create an indicator considering the annual payments (from 1995 to 2011) divided by the total amount of decided European structural funds, considering the total allocation by region from 1995 to 2011 (through the programming periods 1994-1999, 2000-2006 and 2007-2013). Moreover, data of each region has been compared to the total amount of annual payments (on decided funds) of regional programmes of the entire country. In this way, the indicator has been constructed as the difference between the performance of one region (annual paid funds on the aggregate decided funds during the 1995-2011 period) compared to the others (total data of all Italian regions). National or multi-regional programmes, managed by national authorities, have not been included. Therefore, this indicator represents the ability of a region to use European Structural Funds compared to the average of Italian regions. Data has been obtained by the European Commission (Directorate-General Regional Policy)<sup>9</sup>.

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<sup>6</sup>European Regional Development Fund; European Social Fund

<sup>7</sup>For an overview of the use of Structural Funds in Italy, see [http : //ec.europa.eu/regional\\_policy/atlas2007.htm](http://ec.europa.eu/regional_policy/atlas2007.htm)

<sup>8</sup>For an explanation of the payment system of EU Structural Funds, see Bubbico and De Michelis 2011

<sup>9</sup>Data on SF are shown in the Appendix.

As analysed in the literature, SC is a quite elusive concept. The choice of SC *proxies* has been oriented on particular indicators which are in some way *classical* and recognised indicators of SC, although studying human relations with too much *strumental* variable may present some limitations (see Hadjimichalis 2006). Here it is safe to say that a *trade off* exists between a correct picture of local relations between people, related to a particular history, traditions and norms that are typical of each family, each region, and the possibility to use 'instruments that leave a trace in directories, files, records, sales volume etc..' (Cartocci, 2007: 59), which can be used in quantitative analysis. These variables have proven to be significant in several analyses in order to explain human relations in the case of the Italian regional contexts. SC variables have the role to control for social relations embedded in a territory, as detailed above in the hypothesis.

The SC variables used in the analysis are the following:

- Blood donations standardized for regional population;
- Adult children (Number of young adult individuals living with parents per 100 individuals aged 25-34);
- Presence of cooperative companies on the total number of companies in the regions (in percentage) ;
- Level of inequality in each region is considered largely through the regional Gini Index.

The variable capturing the level of blood donations is considered by several authors such as Giordano and Tommasino (2011), Crescenzi et al. (2011), Cartocci (2007), Guiso et al. (2004) and it is used to assess the effect of SC on economy, innovation or AE in Italian provinces. It is an expression of 'disinterested altruism, which moves from a sense of moral obligation towards others' (Cartocci, 2007: 80). The donation of blood may be considered as a gift to unknown people, where there is not a social obligation to return the favor (Boccacin, 2000) nor to obtain a benefit. These two characteristics have been analysed by several authors such as Mauss (1924) and Polanyi (1978). Having knowledge of who is receiving blood, might cause problems because of ethnicity, religion and political motivations (Titmuss, 1970). This type of donation is free from any formal or informal obligations and it does not give possibility of constraints or gratitude and penitence. It is a one-sided exchange, and the donor has not the

certainty of receiving back the gift in the future and therefore it is a proof of a great trust in others (Cartocci, 2007). As pointed out by Crescenzi et al. (2011), blood donations are free in Italy and there is no monetary compensation. Moreover, there is not a problem of unevenly distributed clinics, that could compromise the equal possibility for anyone in the country to be a donor. Data are extrapolated from the National Institute of Health (*Istituto Superiore di Sanita'-ISS*) with an availability between 1997 and 2008. Missing data are assessed through the linear imputation method.

The variable on young adults living with their parents captures the degree of relations inside the familial groups (Crescenzi et al., 2011) and it is one of the two variables used as *proxy* of bonding SC. Studying social relations in Italy, Banfield (1958) underlines that strong familial relations blind the propensity to cooperate among people and that represents a transaction cost in an economic view. Alesina and Giuliano (2010) find out the relation between strong family ties and low degree of generalized trust. Durantoni et al. (2009) consider the relation between typical family structures and economical outcomes with strong family ties fostering the closure towards the 'others'. As pointed out by Crescenzi et al. (2011), there is no relation between the variable adult children and the local unemployment conditions, underlying the cultural factor behind this condition. Data on adult children are extracted from the Italian National Institute of Statistics (Istat).

The number of cooperative companies on the total number of companies represents the will to share common projects in order to grow economically. This variable is included in other studies (such as Putnam et al., 1993) among those variables capturing the level of associativity between people. It represents the degree of confidence in the workplace amongst individuals in the economic realm. The cooperative companies represent a challenge and a risk as the job of each participant is linked to the job of others. Therefore, this variable differs from blood donation, for which the contribution of the donor is without any assumption of refund. In the case of cooperatives the association has the goal of returning the gift. In this context, the cooperative represents the degree of confidence in the collective and the degree of awareness that combining forces produces better results for those who are participating. Rather than considering the number of cooperatives companies as a *proxy* of bridging SC (Putnam, 2000) here the variable is considered as *proxy* of bonding SC because even if it represents the capacity to put together

people, it is also true that people participating into the cooperative follow particular interests related to their group rather than the general public interest. Data are collected by the Italian National Institute of Statistics.

Lastly, the analysis gives a particular emphasis to the research of De Blasio and Nuzzo (2012). The authors study the relation between inequality and SC in the Italian case, identifying a negative association. According to the authors, this is due to the fact that individuals are less likely to behave in a pro-social way in case of high inequality. This suggestion is considered here both for bridging and bonding SC indicators in two ways. A first analysis considers the inequality level as a control variable (in the same way of wealth and demographic variables). Secondly, in a specific analysis the level of inequality (Gini Index) is directly used in the construction of bridging and bonding SC *proxies*. In particular, SC is filtered with the inequality level by dividing the *proxies* of bonding and bridging SC by the Gini index.

## 4 Methodology

### 4.1 The Quantitative Analysis

The balanced panel consists of 21 Italian regions spanning 17 years (1995-2011). The OLS (Ordinary Least Squares) estimation using panel data with both fixed-effect and time fixed effects allows to control for: 1. factors that vary across regions but do not change over time; 2. factors that change over time but do not across regions. In this way the problem of omitted variable bias is reduced in the analysis. Here the Eq. (1) is estimated using the indicators of regional health care mobility expenditure (divided by 1000 euros) and of European Structural Funds' absorption by regional governments as *proxies* of AE. One critical issue addressed here is the possible bias resulting from endogeneity between AE and SC. This stems from the likelihood that AE be a function of SC. Then, time lags are used to reduce the possible problem of endogeneity.

In this theoretical framework, the degree of citizens' concerns for public affairs has an impact on efficiency (due to the pressure that vigilant citizens put on politicians). In the empirical analysis we capture this link estimating the following equation:

$$AE_{it} = \beta_0 + \beta_1 AC_{it} + \beta_2 SC_{i,t-\tau} + X_{it} + \delta_i + \epsilon_{it} \quad (1)$$

Where

- AE is administrative efficiency , that will be measured by the health care mobility and absorption of European structural funds
- AC is administrative continuity, measured as dummy variables when considering health care mobility as response variable and as an Index from 0 to 10 constructed as follow:

$$AC_{i\text{stand}} = \left( \frac{AC_i - AC_{min}}{AC_{max} - AC_{min}} \right) * 10^{10} \quad (2)$$

when absorption of European structural funds is used as response variable.

- SC is social capital with a lag of 5 years when analysing Health Care Mobility and of 1 year when analysing EU structural funds;
- X represents the matrix of control variables that are the log GDP per capita, the indicator of population density, the quantity of regional population, the index of inequality (Gini Index);
- $\delta$  represents a macro regional dummy and in particular the Southern regions of Italy<sup>11</sup>;
- $\epsilon$  is the error term;
- $i$  represents each region,  $t$  the time and  $\tau$  the time lag.

The indicator of AC has been created as the gap to one of the annual ratios between the number of changes in the councillors and the number of the councillors in office for each Italian region and year considered. While this variable is used directly when considering European SF absorption, when analysing health care mobility three dummies are constructed in order to represent different degrees of AC. The low level of continuity is considered as a baseline and dummies express medium-low, medium-high and high level of AC. Then, in order to create dummies, the distribution of the AC variable (as the average for data from 1989 to 2011) has been divided in quartiles. This choice is justified by the fact that it is useful to take into consideration the long-term character of the policy when considering health services efficiency. Here it is hypothesized that it is not the change of one year in regional governments causing the

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<sup>10</sup>Method of standardization from Fischer e Schornberg (2007)

<sup>11</sup>The Southern regions are the following: Abruzzo, Molise, Campania, Puglia, Basilicata, Calabria, Sicilia, Sardegna.

efficiency in the health care services in Italian regions, but the trend of AC. Consequently, the average of the AC variable is considered between 1989 and 2011 because of the lag needed to AC to have some effect on a long term policy. Moreover, assuming that the positive or negative effect of AC is cumulative on health care services, the AC average between 1989 and 2011 may well explain the efficiency for each year, from 1995 to 2011.

Is it relevant to analyse not only the quantity of relations (or the quantity of networks among people in one region), but also the quality of these relations. As shown in the recent literature on Italian case (De Blasio and Nuzzo 2012), more inequality produces less SC through less pro social behavior. The inequality within a region can explain the level of repeated interactions between the same socio-economical group. Thus, the variable of inequality (Gini index) is studied as filter for bridging and bonding SC. SC variables are divided by the Gini index in such a way that as the level of inequality increases, the amount of bridging and bonding SC decreases.

Some precautions are taken in order to avoid the possibility that the causal relation has an inverse relation from the response variable to SC ones, rather than the opposite. The analysis considers and controls for problems of endogeneity between AE and variables of SC using a temporal lag of five years in the case of health care mobility as response variable and one year in the case of analysis of EU structural funds absorption as *proxy* for AE. This choice is due to the difference between the long-term and the short-term policies. While the effect of the quality of social relations can be seen after long time in case of health care services, the control of the local society on the absorption of European structural funds is quite immediate.

## 5 Results Discussion

### 5.1 Analysis of Health Care Mobility

The results (Table 1) show that AC has a positive effect on AE measured as health care mobility expenditure balance, controlling for wealth, population density and economic inequality. The more regions are marked by continuity of regional government, the greater the relative advantage in terms of efficiency. In particular, regions with a medium low level of AC obtain 38,773,000 euros more than a region with low AC, that is the baseline; regions with medium-high AC obtain 65,457,000 euros more than low AC regions, controlling for other variables. Regions

with high AC obtain 165,233,000 euros more than the baseline regions, controlling for other variables<sup>12</sup>.

Considering blood donations per capita and people aged 25-34 living with their parents as *proxies* of bridging and bonding SC and the interactions between these and the continuity dummies (Table 1), it is observable the positivity of SC with a distinction between bridging and bonding. In particular, the positive effect of bridging with increased continuity is more favorable than the bonding SC, controlling for the wealth, wealth inequality and demographic variables. Furthermore, it is noticeable that Southern regions result more efficient when controlling for wealth and demographic variables (this point will be discussed in the next subsection).

In table 2 is considered the Gini index (inequality level) controlling directly for variables of SC. In this case bonding SC filtered by Gini index has a negative effect with an increase of the continuity level, while the bridging SC maintains a positive effect. The use of the Gini index allows to better consider the different regional situations. In fact, both in the case of bonding and bridging SC, the Gini index has an effect of reducing the relations among people (De Blasio and Nuzzo 2012). Results in Table 2 differ from those of Table 1 since inequality affects the variability of SC *proxies* rather than being simply a control. There is a conceptual difference in the two analyses. Considering the Gini index directly in the amount of the two *proxies* of SC means that these are not equally measured in two contexts in which the level of inequality is different. Controlling directly for the inequality level, the hypothesis about the negative effect of bonding SC coupled by raising AC is confirmed. This means that, in regions where bonding SC corrected by inequality is high, a high continuity is negative for the efficiency of the regional administration. The effect of the AC on the efficiency in health care services not only depends on the level of SC but also on the level of particular kinds of SC. If the regional society is opened to 'external' relations (bridging SC), AC represents a positive value. On the contrary, if a society is characterized by strong relations inside groups of people (bonding SC) the continuity has a negative value for regional AE.

The same analysis is conducted using the number of cooperative companies (as a percentage on the total number of companies in one region) as *proxy* for bonding SC. The results of the analysis, controlling for the log of GDP per capita, demographic variables and the level of

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<sup>12</sup>A list of regions with low, medium low, medium high, high level of AC is provided in Appendix

inequality, are presented in Table 3. The results confirm what has been already observed in the previous regression results: as long as the AC increases, the AE increases as well. The impact of blood donation is not significant while the impact of bonding SC is significant and negative. When considering the interactions with AC, bonding SC is not significant for all the levels of AC, while the impact of bridging SC changes sign, from negative (when the level of continuity is low) to positive (when interacting with higher levels of AC). In Table 4 the results of the analysis when the direct filter of the level of inequality is considered, both for bonding and bridging SC. The impact of bridging SC is not significant, while bonding SC has a significant and negative effect on the response variable. When considering the interactions between levels of AC and SC, it is observable that as long as the AC raises, bonding SC has a negative impact while the bridging SC is positively associated with the response variable.

## 5.2 Analysis of EU Structural Funds

When measuring AE through the capability of using SF (Table 5), the results show that increased AC has a negative effect when it is considered without interactions with SC. Using the lagged continuity index (one year lag) and the lagged *proxies* of bridging and bonding SC (Table 5), there is evidence that shifting from a degree to another in the index of continuity is associated with a decrease of the annual capacity of spending Structural Funds. In particular, the decrease equals to 2.44 million of Euros, controlling for log GDP per capita, Gini index, demographic variables, and the level of bridging and bonding SC. The effect of an increase of the degree of *civiness* (blood donation) is negative for the absorption of structural funds, controlling for the level of continuity, bonding SC and for all the control variables. The rise of a percentage point in blood donations (standardized for regional population) causes a decrease of 174.82 million of paid SF compared to the average of Italian regions. Moreover, the coefficient of geographical dummy shows that Southern regions have the capability to spend 17.55 million Euro more than the other regions, controlling for the other variables. The response variable is built in a way that already controls for the higher SF allocations to Southern Regions.

The interactions between SC and continuity index are significant and positive, controlling for other variables. This confirms that SF are better absorbed when there is an increase in the government continuity in situations of high bonding and bridging SC. This also shows that

VARIABLES	Health Mobility	Health Mobility	Health Mobility
log Gdp	-5,069 (18,692)	-16,407 (28,921)	-5,987 (29,506)
Density	-130.2 (123.4)	-199.5 (138.3)	-263.6 (163.6)
Population	0.0405***(0.00486)	0.0607***(0.00617)	0.0580***(0.00595)
Gini Index	35,573***(7,067)	76,549***(15,305)	59,909***(19,845)
Continuity ML	38,773*(21,692)	49,299 (36,255)	-19,739 (38,981)
Continuity MH	65,457**(30,176)	85,858*(49,675)	-4,978 (53,640)
Continuity H	165,233***(54,674)	225,161**(91,921)	125,984 (96,180)
Blood Donation_5		298,073 (181,390)	-2.139e+06***(382,174)
Young Adults_5		58.20**(28.77)	-35.56 (75.01)
Blood Donation_5 ML			2.285e+06***(385,751)
Blood Donation_5 MH			2.894e+06***(414,539)
Blood Donation_5 H			2.944e+06***(400,242)
Young Adults_5 ML			106.5 (90.00)
Young Adults_5 MH			-42.48 (94.66)
Young Adults_5 H			173.5*(89.74)
South	149,996**(58,847)	200,262**(98,038)	195,823**(97,515)
Constant	-163,952 (240,118)	-153,306 (385,986)	-164,692 (389,526)
Observations	357	252	252
R-squared	0.519	0.619	0.666

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 1: Fixed-effects and Time fixed-effect Panel, Health Mobility

VARIABLES	Health Mobility	Health Mobility
log Gdp	28,359 (29,289)	47,350*(27,318)
Density	-216.8 (136.5)	-370.4**(149.1)
Population	0.0546***(0.00645)	0.0567***(0.00613)
Continuity ML	87,783**(37,705)	76,655**(32,395)
Continuity MH	-157,350***(51,747)	-235,673***(49,383)
Continuity H	13,617*(8,038)	-44,816***(10,159)
Blood Donation Gini_5	-42,730 (40,271)	-673,794***(80,182)
Young Adults Gini_5	-0.169 (1.692)	55.84**(23.11)
Blood Donation Gini_5 ML		414,350***(125,692)
Blood Donation Gini_5 MH		841,971***(86,808)
Blood Donation Gini_5 H		668,304***(80,444)
Young Adults Gini_5 ML		-51.36**(22.29)
Young Adults Gini_5 MH		-83.37***(22.76)
Young Adults Gini_5 H		-14.77 (24.01)
South	285,355***(104,968)	310,430***(95,820)
Constant	-357,009 (304,298)	-498,943*(281,790)
Observations	252	252
R-squared	0.588	0.660

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 2: Fixed-effects and Time fixed-effect Panel, Health Mobility and filtered Social Capital

VARIABLES	Health Mobility	Health Mobility
log Gdp	-17,762 (32,140)	-738.7 (30,802)
Density	-180.4 (137.2)	-182.3 (151.7)
Population	0.0737***(0.00766)	0.0650***(0.00764)
Gini Index	49,113***(18,819)	35,520**(17,827)
Continuity ML	68,975*(40,098)	78,008 (56,135)
Continuity MH	105,409*(54,223)	41,843 (66,716)
Continuity H	281,797***(101,565)	212,574*(110,867)
Blood Donation_5	180,332 (205,633)	-2.123e+06***(536,210)
Cooperative companies_5	-9,837***(2,003)	-6,890 (4,465)
Blood Donation_5 ML		1.628e+06***(578,552)
Blood Donation_5 MH		2.687e+06***(516,749)
Blood Donation_5 H		2.642e+06***(498,193)
Cooperative companies_5 ML		-8,119 (5,907)
Cooperative companies_5 MH		2,534 (5,034)
Cooperative companies_5 H		3,648 (4,850)
South	288,233***(108,293)	300,133***(105,416)
Constant	-171,919 (428,475)	-292,377 (418,335)
Observations	231	231
R-squared	0.666	0.705

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 3: Fixed-effects and Time fixed-effect Panel, Health Mobility 2

VARIABLES	Health Mobility	Health Mobility
log Gdp	41,235 (29,417)	51,501*(29,568)
Density	-232.9*(139.8)	-309.7**(150.9)
Population	0.0629***(0.00756)	0.0619***(0.00832)
Continuity ML	117,410***(38,544)	93,264**(36,787)
Continuity MH	166,072***(56,096)	109,667**(55,067)
Continuity H	374,522***(103,866)	331,500***(100,510)
Blood Donation Gini_5	12,957 (46,776)	-828,026***(163,244)
Cooperative companies Gini_5	-282.7**(135.7)	1,482*(812.4)
Blood Donation Gini_5ML		613,896***(182,045)
Blood Donation Gini_5MH		1.000e+06***(158,782)
Blood Donation Gini_5H		942,009***(151,928)
Cooperative companies Gini_5ML		-1,550*(789.7)
Cooperative companies Gini_5MH		-1,849*(1,051)
Cooperative companies Gini_5H		-2,104***(806.3)
South	363,969***(110,458)	366,848***(105,954)
Constant	-864,191**(409,497)	-923,947**(402,806)
Observations	231	231
R-squared	0.623	0.670

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 4: Fixed-effects and Time fixed-effect Panel, Health Mobility and filtered Social Capital

the contribution of bridging SC is very large relatively to the contribution of bonding SC, that instead is quite limited. Particularly, when the continuity index increases by a point and the blood donations increase by a percentage point, the increase of paid SF is equal to 170.25 million Euros comparing to the Italian average (controlling for other variables). With an increase of a percentage point of young adults, the increase of paid SF is equal to 0.04 million Euros, controlling for other variables. In this case the dummy for the Southern regions is again significant and positive.

When the inequality index is directly used in the bridging and bonding SC (Table 5), there is a coherence of results with the outcomes described above. However, the significance of the coefficient relative to the *proxy* of bonding SC is positive. With an increase of a percentage point of young adults, corrected for inequality levels, there is a raise of 0.001 million of SF absorbed (compared to the Italian average), while with an increase of a percentage point of blood donations, corrected for inequality, there is a decrease of 23.19 million Euros. The interactions between the SC *proxies* (controlled for inequality) and the continuity index is positive and significant. In particular, an increase at the same time of a point in the continuity index and of a percentage point of blood donation is associated to an increase of 38.66 million Euro of SF absorption, controlling for other variables. The dummy variable relative to Southern regions is not significant. This means that there is not a significant difference in the capacity of using SF by the Southern regions.

In Table 6 are reported the results of the analysis using cooperative companies as *proxy* of bonding SC. Even if the single coefficients change, the general outcome is in line with previous results, when considering Gini index as control variable. Instead, when it is used directly in the measures of SC, the results show a not significant impact of the bridging SC. In general, the evidence from the analysis of EU structural funds is that the raise of the continuity index is positive when coupled by bridging and bonding SC, with a particular importance of the bridging SC. In other words, regions having a low level of continuity may have a big advantage when they rise AC only if this is coupled by bridging SC, and a little advantage when the increase of AC is coupled by bonding SC. Finally, if the increase of continuity is not coupled by a rise of SC, the effect is negative.

VARIABLES	Structural Funds	Structural Funds	Structural Funds	Structural Funds
log Gdp	11.87*(6.547)	10.61 (6.661)	7.366 (6.286)	5.259 (6.276)
Density	0.00840 (0.0309)	0.00725 (0.0307)	0.0150 (0.0311)	0.0124 (0.0305)
Population	7.23e-07 (1.17e-06)	8.35e-07 (1.17e-06)	1.85e-06*(1.10e-06)	1.75e-06 (1.09e-06)
Gini Index	-2.400 (3.024)	-2.582 (2.992)		
Continuity_1	-2.441**(0.963)	-8.252***(2.609)	-2.447**(0.992)	-6.322***(2.067)
Blood Donation_1	-174.8***(48.01)	-312.2***(77.06)		
Young Adults_1	0.000389 (0.00799)	-0.0366**(0.0179)		
Continuity BD_1		170.3**(81.96)		
Continuity YA_1		0.0433*(0.0227)		
BD Gini_1			-23.20**(9.163)	-56.13*** (20.94)
YA Gini_1			0.00181**(0.000877)	-0.00213**(0.000824)
Continuity BD Gini_1				38.66*(23.23)
Continuity YA Gini_1				0.00569***(0.00139)
South	17.55**(8.357)	16.05*(8.498)	15.03*(7.624)	11.61 (8.287)
Constant	-131.6*(72.81)	-112.6 (74.42)	-89.61 (70.95)	-61.45 (70.96)
Observations	334	334	334	334
R-squared	0.227	0.237	0.212	0.233

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 5: Fixed-effects and Time fixed-effect Panel, Structural Funds

VARIABLES	Structural Funds	Structural Funds	Structural Funds	Structural Funds
log Gdp	12.17*(6.527)	11.86*(6.565)	7.739 (6.331)	6.184 (6.281)
Density	0.00427 (0.0302)	0.00423 (0.0304)	0.0199 (0.0313)	0.0204 (0.0311)
Population	1.55e-06 (1.29e-06)	1.54e-06 (1.29e-06)	1.49e-06 (1.15e-06)	9.79e-07 (1.13e-06)
Gini Index	-2.814 (3.173)	-2.778 (3.163)		
Continuity_1	-2.417**(0.946)	-7.493**(3.223)	-2.422**(9.569)	-7.581*** (2.011)
Blood Donation_1	-184.7*** (44.17)	-316.0*** (76.24)		
Cooperative companies_1	-0.687 (0.442)	-0.975*(0.573)		
Continuity BD_1		156.5*(82.08)		
Continuity SC_1		0.360 (0.623)		
B Donation Gini_1			-24.30**(9.569)	-59.50*** (20.88)
Coop companies Gini_1			0.0455*(0.0258)	-0.0526**(0.0204)
Continuity BD Gini_1				38.01 (23.23)
Continuity SC Gini_1				0.155*** (0.0353)
South	21.83**(8.753)	21.30**(8.829)	14.88*(8.396)	11.16 (8.279)
Constant	-135.2*(72.69)	-127.5*(73.22)	-93.35 (71.47)	-69.26 (70.94)
Observations	334	334	334	334
R-squared	0.234	0.240	0.208	0.230

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 6: Fixed-effects and Time fixed-effect Panel, Structural Funds 2

### 5.3 North-South dualism: evidence from the analysis

This research has not as a primary aim to analyse the Italian dualism, however, it is interesting to explain the results of the current analysis in the light of this debate. Differences in the quality of governments between Northern and Southern regions represent a constant outcome of the analyses of the Italian case<sup>13</sup>. If treating the problem from a sociological (Cassano 1996) or economical (Viesti 2009) standpoint, the lack of *civiness* seems to be the main problem for Southern Italian regions, in line with the findings of Putnam et al. (1993). Accountability and transparency are seen as main factors of change (Viesti 2009; Trigilia 2011; Barca 2009, 2012). However, the results of this analysis are not in line with previous research on the field (e.g. Giordano and Tommasino 2011), demonstrating, in particular, that, controlling for demographic variables, the Southern Regions are more efficient in the use of SF and in health care mobility expenditure.

In tables 7 and 8, the dummy for Southern regions is considered together with the control variables used in the previous analyses. The Southern regions results better in terms of AE, when considering both health care mobility and absorption of structural funds. Although the data (see Appendix) on these two *proxies* is more positive for Northern regions, when the geographical location is controlled for the demographic variables (density and population) and the log GDP per capita, Southern regions result more virtuous. The geographical dummy is not significant when considering only the log GDP per capita. Considering health care mobility, the explanation of these results can be found in the fact that the health care system is quite related to demographic variables (economies of scale).

Looking at the capability to absorb EU structural Funds (Table 8), the results point again at the demographic factors for the explanation of the 'virtual' virtuosism of Southern regions. To conclude, the results suggest that Southern delays may be also explained by demography, and above all total population, since the geographical dummy is more significant when analysing only population as control. The policy implication is that demographic variables need to be carefully accounted when considering the management of public services and when assessing their supply efficiency. These findings raise some questions requiring further analysis.

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<sup>13</sup>Recent evidence on EU regions is reported in Quality of Government Institute 2010.

VARIABLES	Health Mobility	Health Mobility	Health Mobility	Health Mobility
log Gdp	9,066 (19,793)	594.6 (24,057)		
Density	-171.2 (131.5)		333.5** (169.1)	
Population	0.0395*** (0.00501)		(0.00557)	0.0351***
South	96,249*** (31,441)	-969.7 (31,600)	32,976* (17,607)	90,533*** (14,642)
Constant	-237,049 (228,399)	-6,587 (273,873)	-56,600* (28,876)	-144,672*** (23,213)
Observations	357	357	357	357
R-squared	0.491	0.296	0.331	0.485

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 7: Fixed-effects and Time fixed-effect Panel, Health Mobility, South

VARIABLES	Structural Funds	Structural Funds	Structural Funds	Structural Funds
log Gdp	4.751 (5.669)	6.124 (5.535)		
Density	0.0246 (0.0304)		0.0614** (0.0267)	
Population	2.60e-06** (1.01e-06)			3.24e-06*** (8.89e-07)
South	14.77* (7.588)	7.174 (7.297)	5.523* (2.931)	7.657*** (2.533)
Constant	-68.45 (63.93)	-69.16 (62.95)	-9.858** (4.605)	-12.79*** (3.754)
Observations	357	357	357	357
R-squared	0.161	0.135	0.150	0.157

Robust standard errors in parentheses

\*\*\* p<0.01, \*\* p<0.05, \* p<0.1

Table 8: Fixed-effects and Time fixed-effect Panel, Structural Funds, South

## 6 Conclusions

This work, by using panel data on Italian regions covering a time frame of 17 years, answered to the research question about the role of administrative continuity for the efficiency of regional governments in different social contexts. The analysis has highlighted that, controlling for bridging and bonding SC, administrative continuity has a positive effect for long term policies. This confirms that AC has a positive value, as it gives certainty and time to regional administrations to take decisions for long term objectives, without the contingency to concentrate on immediate needs. This also confirms the findings of Milio (2008) analysing a sample of Italian regions. When considering short-term policies, administrative continuity has a negative effect on the administrative efficiency, controlling for bridging and bonding SC. In other words, when the effect of a policy is immediate, the discontinuity is positive, maybe for the need of the regional government to provide immediate results to the community.

Furthermore, it has been assessed the role and the effect of administrative continuity on the regional government efficiency when controlling for different levels and qualities of SC. Although the AC represents a positive element for regional governments, it is demonstrated that this may have a diversified impact on Italian regions. In fact, only in areas where there is a low level of SC, AC is likely to encourage inefficiency, probably because provoking political patronage. This opposes Olson's standpoint (Olson 1984), whereby administrative continuity is related to corruption in every situation and in all regional contexts. It is shown that the relationship between continuity and administrative efficiency depends on the quality of the SC present in a region. In particular, bridging SC is essential to enable administrative continuity for a positive effect, both in case of short and long term policies. Instead, bonding SC may be negative coupled with administrative continuity in case of long term policies and almost irrelevant in short term policies. A possible explanation, coming from the literature (e.g. Milio 2008; Nannicini 2010), is that a positive relation between bridging SC and administrative efficiency occurs because bridging SC promotes more 'control' on the public administration. Moreover, it also creates a virtuous circle of good practices.

In the absence of a certain level of civil society supervising the management of public goods, administrative continuity easily leads to widespread patronage. As a consequence, regions with

a scarce level and quality of social capital, can receive a negative effect when the administrative continuity is increasing. Surprisingly, in this case, it would be better to have a high discontinuity in the administration to avoid clientelistic behavior. This is more evident, as shown in the analysis, in long term policies maybe because of a wide difficulty in pursuing a long-term strategy that produces innovative policies in the presence of a predominance of bonding SC.

The study of politics and regional governance in recent years is at the heart of an European debate. The European Commission does not miss the opportunity to reiterate that quality of institutions must be central to define strategies for improving the economic and social life (Barca 2009; European Commission 2010). In particular, the European Commission prompted the regional institutions to be innovative in governance and policy making, developing, defining, and ultimately realising a strategy for sustainable economic and social development (European Commission 2010). This work gives a contribution in understanding in which cases administrative continuity may represent a political driver for realising efficient policies, and it warns against the consideration of government continuity as a positive aspect in every context, providing concrete evidence.

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[www.bancaditalia.it](http://www.bancaditalia.it)

[www.eurostat.eu](http://www.eurostat.eu)

[www.governo.it](http://www.governo.it)

[www.interno.gov.it](http://www.interno.gov.it)

[www.iss.it](http://www.iss.it)

[www.istat.it](http://www.istat.it)

[www.tesoro.it](http://www.tesoro.it)

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