# Culture of Corruption and the Contagion Effect: Evidence from Italy

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## Abstract

The aim of this study is to assess whether the existence of some sort of contagion effect is a valid hypothesis to explain the emergence of a well-established *culture of corruption*.

A new dataset of 1,658 individuals between 14 and 30 years old has been created. A preliminary study confirmed a positive correlation between past and future actions of individuals whilst the main analysis of the new dataset brought to light the positive relationship between individuals' behaviours and the level of corruption both perceived by the same respondents and by an imported index (EQI2013) which measures corruption through analysing the regional quality of institutions.

The complementary study was intended to assess whether the differences across Italian regions are confirmed by the new dataset. No particularly relevant differences arouse except for the levels of corruption perceived by the respondents which appeared way higher for the residents of the southern part. This result is important in order to conclude that the contagion effect might be even stronger in those regions where the level of corruption perceived is higher. Since a positive correlation between the perceptions of others' behaviours and self-conduct, it appears reasonable to assume that prolonged-in-time bad perceptions about the place one lives in and the contagion effect are good potential creators of a *culture*.

## INTRODUCTION

In recent years, corruption is arousing more and more interest around the world. Many global institutions are calling everyone's attention to the growth of this phenomenon. But corruption is not something new: it has evolved over time, but it has always been there.

Until few years ago, the traditional approach to study the phenomenon was related to economic and political factors such as the degree of development of a country and its economic growth rate, or its openness to trade, the form of government, the power and the degree of decentralisation of its institutions or the freedom of the press[1].

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[1] P. MAURO, *Corruption and growth,* Quarterly Journal of Economics, 110, 1995.
D.TREISMAN, *The causes of corruption: a cross-national* study, Journal of Public Economics, 76, 2000.

Although it is now common knowledge that more virtuous countries share some fundamental characteristics (such as the access to the government's balance sheet in order to show to the citizens how public money is invested, high levels of integrity among people in power, high degree of freedom of the press, independency and fairness of the judicial system[2]), several researchers have found out that perceived corruption is not highly correlated with the actual experiences of citizens. In fact, according to Treisman (2007), experience-based measures concentrate on a different phenomenon, the one of *petty corruption*, which usually involves smaller amounts of money. It is also called *bureaucratic corruption* since it concerns the interactions of low and mid-level public officials with ordinary citizens in an "everyday abuse of entrusted power".

In this work the focus will be on the usage and the perception of little entity bribes and unethical behaviours in Italy in order to assess whether corruption may be correlated also to causes other than the traditional ones. In particular, micro-data will be used to explore the connection between the past experiences of individuals and the attitude towards their future actions and to understand how these behaviours influence the way in which one looks at bribery and tolerates it.

Miller (2006) found discrepancies between what people confess and what they actually do.

Also, according to Susan Rose-Ackerman, *ordinary people condemn corruption at the élite level, but they themselves participate in networks that socially reproduce corruption[3]*.

This is an important point which is creating interest among researchers and institutions. According to Maria Teresa Brassiolo, president of the Italian division of *Transparency International* in 2012, in Italy *petty corruption* is much more diffused than other kinds. The actors of such unethical behaviours are, according to the *ex*-president of TI-It, not as much the managers of big multinationals (not very diffused over the territory) but rather local entrepreneurs, the council member in the small district or the public official. The phenomenon depends on the high level of tolerance of citizens toward unfair and illegal situations which do not scandalise them anymore.

In a country where tolerance of misconduct is diffused, the contagion is endemic.

The study by Borra and Castelli[4] allows investing some hope in finding results about the presence of culture behind corrupted practices. They observed that, with respect to the "low-corruption-characteristics" that some countries share, the perceived level of illegal activities in each of these State actually varies a lot. This is why they created a new and more precise index which measures the *excess* or *lack* of corruption in a certain country with respect to the one it should have given its characteristics, highlighting that traditional explanations are not enough to explain the phenomenon. Italy corresponds to this description: it is characterised by levels of diffusion of corruption which are very different and in contrast with those of countries with similar characteristics in terms of development, economic growth, form of government and so on. Furthermore, at the same time, it is very common to hear that those levels differ a lot even in its same territory.

A number of studies attribute the cause of these internal differences to different historical experiences which led to the creation of a texture of the society which contains different levels of *social capital*.

A. BRUNETTI; B. WEDER, *A free press is bad news for corruption*, Journal of Public Economics, 87, 2003.

[2] www.transparency.org

[3] S. ROSE-ACKERMAN, *Corruption: Greed, Culture, and the State*, The Yale Law Journal, vol. 120, 2010.

[4] S. BORRA; A. CASTELLI, *Monitoring cross country corruption through perception indexes: is it enough?*, XXIV Conferenza, Società italiana di economia pubblica, 2012.

In this research the aim is to assess whether the perception of the unethical behaviours of the society has an effect on how individuals, in turn, consider and approach corruption, determining some sort of *contagion*. In addition, the influence of past and future perceptions will be considered.

In this context, I am not going through the whole study, but I will try to report the main features of it, in order to be as brief and exhaustive as possible.

The work of thesis is structured as follows:
Chapter 1 gives an overview of corruption, going through the main problems of the phenomenon which are the attribution of a unique definition and the attempts in measuring it in the most accurate way.
Chapter 2 tries to understand the causes and show hypotheses in which corruption may be linked to culture. Hypotheses such the ones that unethical behaviours may be driven and influenced by people's past actions or by the society are also considered.
In Chapter 3, the results of the questionnaire are presented. Through analysing the answer obtained, one will try to accept or refuse the previous hypotheses in the main part and to test regional differences in the complementary one.

## CHAPTER 1 – AN OVERVIEW ON CORRUPTION

The first problem concerning corruption is to find a univocal definition to a phenomenon which is so multiform per se. However, the most used is the one by *Transparency International* which states that "corruption is the abuse of *entrusted* power for private gain" and it adds that "it hurts everyone who depends on the integrity of people in a position of authority".
Apart from technical definitions, there is always a certain degree of ambiguity in tracing the boundaries of corruption.
Since the problems in finding a definition, the huge variety of contexts in which it may be applied and its illegal nature, corruption is something whose causes are hard to be found.
Obviously, this is something which took (and keeps taking) years for the researchers to understand. Explanations given are of every kind: scientific, political or social. In Chapter 2 I will focus on cultural related ones, specifying that traditional studies wanted to relate corruption to the extent of wealth of countries or their political stability, the efficiency of bureaucracy, the degree of centralisation of their institutions.

The interest of researchers in studying the phenomenon converted into a growing awareness of several institutions. This led to the creation of instruments aimed at investigating its nature, causes and effects, in order to assess and limit the extent of damage caused.
A preliminary analysis is made to distinguish *perception-based* indexes from *experience-based* ones. The formers, try to solve the problem of disinformation: CPI (by *Transparency International*[5]) is one of them, as the RCC (*Rating of Control of Corruption,* by the *World Bank*) which operates only at national level, without making distinction within a country. Both of them work through surveys (generally produced by consultancy agencies) interviewing a great variety of people, belonging to the academic world and to common people.

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[5] *Transparency International* is the global coalition against corruption, created in 1993 by the will of few individuals which decided to take a stance against corruption. It is now present in more than 100 countries. Among their achievements: the creation of international anti-corruption conventions; the prosecution of corrupt leaders and seizures of their illicitly gained riches; national elections won and lost on tackling corruption; companies held accountable for their behavior both at home and abroad. (www.transparency.org)

For this characteristic, the CPI and the RCC may distort reality depending by the lens through which the interviewees observe.

A better measure should be based not only on corruption cases that have yet arouse but also on the *risk*, i.e. the probability that a new corruptive event takes place. However, it will be possible to see that not always one can foresee the level of corruption in a certain country by looking at its main characteristics.

Furthermore, to enact policies to prevent this phenomenon, such as anti-corruption policies, it is necessary to have a *scalable* measure, that can be computed and applicable also at regional and local level.

Under these conditions, the indexes just mentioned are questionable. This makes noteworthy to focus on a second and more precise category of measurement, based on real and tangible facts, recorded thanks to *direct experience*. Among them, the GCB (*Global Corruption Barometer*, by *Transparency International*) and the WBES (*World Business Environment Survey*, by the *World Bank*).

The limits related to the willingness of people to tell the truth or not to be influenced by particular episodes encouraged researchers and institutions to create new measurements more and more accurate and observable. These new instruments are called "objective measures".
The biggest obstacle in their construction deals with methodological problems and availability of data which are necessary to their realization. In fact, one can easily imagine how hard their traceability can be, since talking about an illegal issue. The hope is that in the near future will be possible to have more data available, thanks to the help of technological progress in the diffusion of informatics systems for the management of public policies and bureaucratic issues. These kind of measures are constructed countries by countries. To the knowledge of who is writing there is not an Institutions or Organisation which operates on cross-countries differences for what concern objective measures. For this reason, in this framework the focus will be on Italy.
One of the most used measures in this framework has been created by Miriam Golden and Lucio Picci in 2005[6]; the other one, easier to obtain, is an administrative source furnished by ISTAT (*Italian National Institute of Statistics*).

It is proper to specify that no measure is able to predict corruption with an accuracy of 100% but each one is helpful in order to understand its entity and ability of propagation.
Nevertheless, all the measures used highlight a non-enviable position for Italy.


# CHAPTER 2 – CORRUPTION AS A CULTURAL ISSUE

This chapter is dedicated to a further analysis with respect to the traditional approach to corruption it was shown before. From the evidence of cross countries studies which are summarised through a number of indexes (some of which presented in Chapter 1) it was possible to notice that illegal practices are more frequent in certain countries than in others, even if they share the very same economic and social characteristics.

There are countries, in fact, which possess all the features to have low levels of corruption perceived but they are related to higher levels with respect to what one could imagine; the same is true for the opposite case: there are some countries which register lower levels of corruption with respect to the ones that one could

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[6] L. PICCI; M.A. GOLDEN, Proposal for a new measure of Corruption, illustrated with Italian data, Economics & Politics, Vol. 17, Blackwell Publishing, 2005.

expect. One of these countries is, of course, Italy.

Borra and Castelli (2012) highlighted this limit and proposed a new index called *Excess Perceived Corruption Index* (EPCI). The authors chose the *Human Development Index* (HDI) as a proxy for the development of a country in terms of life expectancy, educational attainment and income.
According to the EPCI, Italy is not ranked around last positions in Europe, but in the whole world. In fact, in compliance with the degree of development and all the potential means to contrast corruption, the degree of tolerance of the phenomenon is too high.

It appears obvious that the levels of corruption perceived in a certain country may depend by causes other than the traditional (economic and political) ones.
*So, is corruption a matter (also) of culture?* A number of researchers has focused on this issue. Since it strongly depends by personal behaviours, we could expect a positive relationship between the two.
The *cultural* issue is seen by some historians as a determinant factor in choosing values and preferences of people which, in the end, become the characteristics and features of the whole society. Consequently, different cultures may generate different mind-sets about how to behave in certain circumstances.

In this dissertation, one will refer to *culture* as the *values, beliefs and behavioural models which characterise the way of living of a certain social group*.

Nevertheless, culture includes a huge variety of aspects. It can be also defined as the system of social, political and economic institutions, of religious and spiritual manifestation which belongs to a society in a specific period. Variables such as *religion, institutions, levels of individualism, civicness,* have been explored by economists and not[7].
In referring to corruption, cultural norms are often described as the boundaries between what can be considered a *gift* and what is instead a *bribe.*
The same behaviour may be interpreted as corruption in one country and be normally accepted in another. *Ethics* is not under discussion in this case. Everybody is able to distinguish what is ethical from what is not.

Human behaving has its basis in a background which includes *family education* and *past experiences*, two "properties" that everyone takes into account when engaging with others. Values and social norms influence both the way of acting and thinking.
It is not unusual, in Italy, that commonly accepted *values* and *behaviours* are matter for discussion. Has this to be intended as a scarce sharing of cultural values?
However, culture is something which can't be quantified. For this reason, one may succeed in measuring the extent of people's attitudes and valued by analysing their behaviours. As mentioned, the economic and non-economic literature is full of studies which attempt to identify in the culture of a specific area the cause of economic and social phenomena. Each author focused on a particular feature related to culture trying to explain the relationship with corruption.
Hooker[8] (2008), for instance, asked himself why in some part of the world corruption and nepotism are more diffused than in other parts: *is it because some people are less ethical than others? Or is it because they have different ethical systems and regard these behaviours as acceptable?*
Fisman and Miguel found out the interesting evidence that diplomats from high corruption countries, as

[7] D. NORTH, *Institutions, Institutional Change and Economic Performance,* Cambridge University Press, 1990.
E.BANFIELD, *The Moral Basis of a Backward Society,* 1958. *Italian version, Le basi morali di una società arretrata,* Il Mulino, 1976.
R. PUTNAM, *Making Democracy Work: Civic Tradition in Modern Italy,* Princeton University Press. Princeton, 1993.
[8] J. HOOKER, *Corruption from a Cross-Cultural Perspective*, Cross Cultural Management: An International Journal, 16, 3, 251-257, October 2008.

Kuwait and African States, collected significantly more parking violations than others such North European countries, North America and Australia. The ranking list elaborated by the authors is consistent with other kind of indices such as the CPI (*Corruption Perceptions Index*) by Transparency International: Italy, in particular, is ranked at the very same level. Fisman and Miguel's results suggest that culture and social backgrounds are factors influencing the long-run differences among countries in matter of corruption. Seleim and Bontis[9] (2009) focused on *gender egalitarianism, future orientation, institutional collectivism* and others cultural dimensions, using them as independent variable in order to understand the relationship with the dependent variable of corruption. They found out that the higher the values of the society, the more the gender equality and future confidence, the lower the level of corruption. Results confirmed by McLaughlin[10] in 2013 in his analysis of Scandinavia and Africa.

In 2005 and then in 2007, Barr and Serra[11] concluded that corruption is, in part, a cultural phenomenon by taking a sample of individuals (about 195 students of Oxford University) living and studying in the UK but coming from over 30 countries in the first study and over 20 then with different levels of corruption according to the CPI. They played a *bribery game* in which *private citizens* and *public servants* had to decide whether or not paying or accepting a bribe in exchange for a service such as a reduction in tax, preferential treatment in a court hearing or speedier admission to hospital.

In an experiment published in March 2016 by Gächter and Schulz[12] arises that dishonesty is a collective fault. The authors made a test on the degree of honesty of a group of 2.568 people in 23 countries including very culturally different cities such as Rome, Prague, Shanghai, Nairobi, Bogotá.

Participants, with an average of 22 years old, had to roll a dice, communicate the results and then, depending on the score, they received a certain amount of money. Since people were not monitored, they had the possibility to say they obtained a higher score than the one they really did.

It emerged that *honesty is influenced by the diffusion of illegal activities within the society*. In fact, they found out a positive correlation between the willingness of the participants to cheat and the episodes of tax evasion, corruption, election rigging, i.e. the *degree of diffusion of norms violation* in their respective countries.

Recently, in 2015, DeBacker, Heim and Tran[13] noted that a big portion of American societies controlled by foreign people was usual to pay a small amount of income taxes or to not pay at all. In their paper *Importing Corruption Culture from Overseas: Evidence from Corporate tax evasion in the United Stated* they made the hypothesis that this kind of societies are more willing to evade taxes when they are controlled by people coming from high corruption countries. Such hypothesis was confirmed by their studies on societies of different dimensions owned by foreigners between 1996 and 2007. Furthermore, the effect is even stronger when the owner comes from a *fiscal paradise* (or *tax heaven*).

They noticed also that the new legislation in the field of fiscal evasion implemented in the period considered led to an important decrease of the phenomenon but less when talking about owners from countries with very high levels of corruption.

One could say that, for certain countries, corrupted practices are facilitated not only in the sense of not perceiving the threat of a legal punishment (weak institutions and low credibility of the authorities) but more

[9] A. SELEIM; N. BONTIS, *The relationship between culture and corruption: a cross-national study*, Journal of Intellectual Capital, 164-184, January 2009.

[10] E. MCLAUGHLIN, *Culture and Corruption: An Explanation of the differences between Scandinavia and Africa,* American International Journal of Research in Humanities, Arts and Social Sciences, 85-91, 2013.

[11] A. BARR; D. SERRA, *Corruption and culture: An Experimental Analysis*, Journal of Public Economics, Volume 94, Issues 11-12, December 2010.

[12] S. GÄCHTER; J. SCHULZ, *Intrinsic honesty and the prevalence of rule violations across societies*, Nature: International weekly journal of science, n. 531, 496-499, March 2016.

[13] J. DEBACKER; B.T. HEIM; A. TRAN, *Importing Corruption Culture from Overseas: Evidence from Corporate tax evasion in the United States"*, Journal of Financial Economics, 2015.

specifically that the degree of tolerance shared among the society is so high that people do not feel "judged" even on a moral basis.

When one says "culture" it appears normal to think about socially shared behaviours.
*Are people's behaviours influenced by others?*

Concerning the issue, the *theory of the broken windows* was introduced in 1982 by James Q. Wilson and George L. Kelling in the field of *social sciences*. It is a criminological theory of the norm-setting and signaling effect of urban disorder and vandalism on additional crime and anti-social behaviour. According to it, even the smallest sign of chaos or disorganisation (as, indeed, a broken window) may contribute to the probability that a person will behave in an illegal or immoral way in that specific context. So, prevent small crimes would allow to prevent more serious ones from happening.
Researches revealed that the behaviour of people and the possibility to break the law is influenced by the awareness of how others behave in the same circumstances. In particular, these showed how the transgression of a norm (do not write on walls) may lead to another one (do not throw things in the street).

The same could be true for corruption and all the social issues.

Through observing the results of 5 experiments in the city of Groningen, Keizer, Siegwart and Steg support the above-mentioned hypothesis, stating that *when people observe that others violated a certain social norm or legitimate rule, they are more likely to violate other norms or rules, which causes disorder to spread*[14].
As stated before when talking about culture and whether someone is able or not to recognise a corrupted action, *people condemns unethical behaviours but they do participate in corrupt practices since they seem to understand the situation as a "collective action" problem where it makes little sense to be "the only one" that refrains from using or accepting bribes and other kick-backs*[15]. As the Nobel laureate Gunnar Myrdal (1968) stated: "Well, if everybody seems corrupt, why shouldn't I be corrupt".

According to the *Evolutionary game theory* (EGT), the behaviour of individuals depends on the "membership" to a certain group and the capacity to feel secured in reproducing their behaviours in the future. The expected result of an individual when he adopts a particular strategy and compares it with others' ones (the so-called *pay-offs matrix*) depends on the totality of values measuring the success of a path and the possibility of behaving in the same way in the future.
*The reason why corruption is a sticky problem is that none of the "players" in such a game have reasons to change their strategy (to pay or demand bribes)*[16].
Obviously, more people adopting unethical behaviours make corruption, even if of little entity, more accepted.
Through studying group dynamics, Dong et al.[17] called this phenomenon "*conditional corruption*".

In addition to conditionality, corruption is also contagious.
Generational effects contribute in establishing a *culture of corruption*.
If corruption increases when a society experiences high levels of it, there is room to think that the same could be true for people past actions.

[14] K. KEIZER; S. LINDENBERG; L. STEG, *The Spreading of Disorder*, Science, 12 Dec 2008.
[15] B. ROTHSTEIN; D. TORSELLO, *Is corruption understood differently in different cultures?*, The Quality of Government Institute, University of Gothenburg, Working paper series, 5, 2013.
[16] B. ROTHSTEIN; M. TEGNHAMMAR, *The Mechanisms of Corruption: Interest vs. Cognition*, The Quality of Government Institute, University of Gothenburg, Working paper series, 3, 2006.
[17] B. DONG; U. DULLECK; B. TORGLER, *Conditional Corruption,* Journal of Economic Psychology, vol. 33, pp. 609-627, 2012.

Harding, Carpenter, Finelli and Passow[18] ran an experiment on a group of undergraduate engineer students to test whether prior academic dishonesty is an indicator of future decision to act dishonestly. They found out a strong relationship between the self-reported involvement in the two. The influence on future actions is true both in the case of college and work situation.

According to the authors, *if a correlation exists between high school cheating and college cheating, one must presume that influences other than situational factors (which clearly change) affect student's decision to cheat. Several studies have found correlations between academic dishonesty and other deviant behaviours, including risky driving, theft from employers, shoplifting, alcohol abuse, and cheating on income taxes*[19].

Also if these studies cannot specifically explain the causes which encourage people to act in an unethical way, they might be reasonable predictors of future deviant behaviours.

Sah (2007) already made the hypothesis of the presence of such an influence even with regard to generations, leaving room to think that future corrupted behaviours are influenced by both individual past actions and others' actions and the mix of the two: the influence of others' past actions. Generational models, in fact, can also explain the attitude towards future corruption.

On the one hand, this contributes in creating a well-established culture of illegality. On the other hand, understanding such a mechanism can help in the fighting against corruption.

The consciousness of this relationship would make plausible the tentative to mitigate the problem through preventing people from starting to cheat at school. In other words, if the relationship holds, the State might try to "solve" the issue by intervening since the childhood period, for instance reactivating or intensifying the study of civic mindedness in schools, making people closer to the ethical behaving and respect of others.

## CHAPTER 3 – EXPERIMENTAL ANALYSIS

Previous chapters were about the further studies of social causes of corruption since a sort of discontent arose, in particular when researchers tried to generalise traditional economic and political reasons to countries with the same features.

Last chapter is about the introduction of a new dataset and the related results. It will go through exploring connections between individual's and society's behaviours, looking for some sort of *contagion effect*.

### 3.1 Creation of the questionnaire

The questionnaire was created in order to explore the attitude of people toward behaviours which may be related to corruption, as unethical acting.

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[18] T.S. HARDING; D.D. CARPENTER; C.J. FINELLI; H.J. PASSOW, *Does Academic Dishonesty relate to Unethical Behavior in Professional Practice? An Exploratory Study*, Science and Engineering Ethics, 2004.

[19] L. BECK; I. AJZEN, *Predicting Dishonest Actions Using the Theory of Planned Behavior,* Journal of Research in Personality, 25, pp. 285-301, 1991.
K.L. BLANKENSHIP; B.E. WHITLEY, *Relation of General Deviance to Academic Dishonesty*, Ethics and Behavior, 10, pp. 1-12, 2000.
G.A. HILBERT, *Involvement of Nursing Students in Unethical Classroom and Clinical Behaviors*, Journal of Professional Nursing, 1, pp. 230-234, 1985.
J. KERKVLIET, *Cheating by Economics Students: A Comparison of Survey Results*, Journal of Economic Education, 25, pp. 121-133, 1994.
R.A. FASS, *Cheating and Plagiarism. Ethics and Higher Education*, 1989.

The choice of the range of age 14-30 appeared strategic because in line with the diffusion method selected, *Facebook,* being the easier range to reach through the social networks.

Also, it has been easier to imagine situations to present in the survey since it is the closest range to the age of who wrote the questionnaire and is approaching to analyse the data collected.

Because of the selected diffusion method, the results suffer of *self-selection* since the respondent chose by themselves whether to answer to the questionnaire.

Furthermore, it has to be considered that, as the respondents have known about the questionnaire through the internet, the results might be biased because of the data obtained which are only the outcome of people using social networks. By the way, it is justifiable to assume that almost the totality of Italian population between 14 and 30 years old uses *Facebook* on a daily basis or have used it at least once during the period of diffusion of the survey.

The situations depicted are daily life examples. This choice might seem way too easy in order to build solid hypotheses but they really represent circumstances that everyone may face every day and which well fit with the experiences that the respondents may have had.

The questionnaire is divided into categories which have not been specified within the survey. Each one corresponds to an aspect that the authors wanted to focus on, such as *culture, attitudes, perceptions and whistleblowing*.

Last section, dedicated to *whistleblowing*, is not considered in this framework and will be object of another work of thesis.

For its realisation, *Google Sheets* have been used. In particular, the *survey form* has been chosen. The answers were automatically registered in a file which was then converted in the *Excel format* in order to reorganise the data and a preliminary analysis through *Pivot tables* was made. Then the dataset has been imported into STATA and fully analysed.

A regional distinction has been specified.

1658 people between 14 and 30 years old answered to the 29 questions proposed through the publication online of the survey. So, the typology of respondent has not been studied *ex ante* (except for the age range) and it is possible to affirm that the selection happened randomly enough.

For ease of interpretation, all the relevant variables have been transformed into binary outcomes where 0 means "honest" and 1 "dishonest".

## 3.2 Selection of the main variables and generation of the explanatory ones

The answers contained in the survey gave rise to a great number of *variables*, each one aimed at capturing a particular shade of the situations described.

At a preliminary analysis was possible to notice that almost all the variables were correlated to each other and the positive sign of the coefficients suggests that people have been *coherent* in answering to the questionnaire. However, not all of them appeared useful to the analysis of the results. For this reason, in this section one will concentrate only on some of them.

One of the statistically significant variables is *attitude_bribe* which describes a situation in which people are asked to answer whether they would offer some "reward" (or compensation) to a public official in return for a help or the speeding-up of a bureaucratic/administrative issue and, if yes, *what* they would offer.

In order to make the interpretation of the results easier, each "reward" proposed has been associated to a number (included between 0 and 1) in relation to the perceived *gravity* of the situation which has been
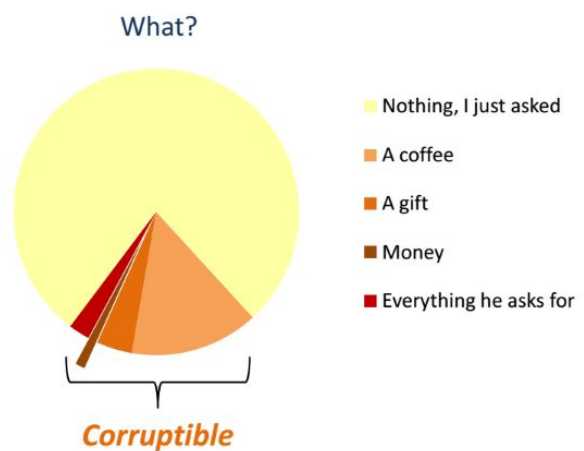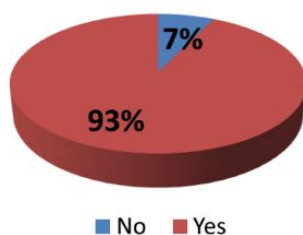
classified according to the relative values of the compensations. In other words, to higher-value rewards corresponds a higher number, as follows:

- *I would not try to corrupt him*                     0

- *I would offer nothing, but I would ask*            0.2

- *A coffee*                                           0.4

- *A gift*                                             0.6

- *Money*                                              0.8

- *I would give him anything he asks for*             1

In addition, a second variable called *attitude_bribe2* has been created in order to distinguish people who would go further in *bribing* a public official from the people who would just ask for a favour without offer something in exchange.

*Attitude_bribe2* classifies people as *corruptible* when *attitude_bribe* is greater or equal to 0.4, that is to say when people try to ask for the "favour" about a service to the public official and they are willing to offer a coffee, or more, in exchange[20].



Would you ask for an administrative/bureaucratic "favour"? (e.g. get an act done faster than the standard period of waiting).

7%
93%

■ No   ■ Yes

What?

■ Nothing, I just asked
■ A coffee
■ A gift
■ Money
■ Everything he asks for

*Corruptible*

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[20] When this specification is made, the number of people who would act dishonestly by bribing decreases from 1.539 to 340 individuals. However, 1.199 of them would through asking. This data calls the attention on the fact that asking for something one knows it is not a duty of the public official is a pretty diffused practice.

**Generation of the explanatory variables**

In order to avoid biases, it has been decided to compare the results with sources which does not depend on the willing of respondents. The two variables which will be used as proxies are:

- the European Quality of Government Index (*EQI2013*)[21];
- the level of corruption perceived by the respondents within their region (*corruption_level*).

The collaboration between the University of Gothenburg and the Quality of Government Institute gave birth to 16 indicators aimed at measuring the Quality of Institutions (QoG). The 2010 round of the project was funded by the EU Commission for Regional Development (REGIO).
The QoG was then broken into four categories (*corruption, respect of the law, performance of public administration, degree of accountability*) and summarised into a unique national and regional index: the European Quality of Government Index (EQI).
As the authors specify, it represents *the largest survey focusing on governance at the regional level.*
Italy shows levels of quality of institutions which varies a lot in the within-country analysis.

The second variable used as *proxy* is *corruption_level.*
It captures the perceptions of individuals about the level of corruption of their regions, which is expressed on a scale basis from 0 to 10, where 0 corresponds to "no corruption" and 10 to "very high levels of corruption" perceived.
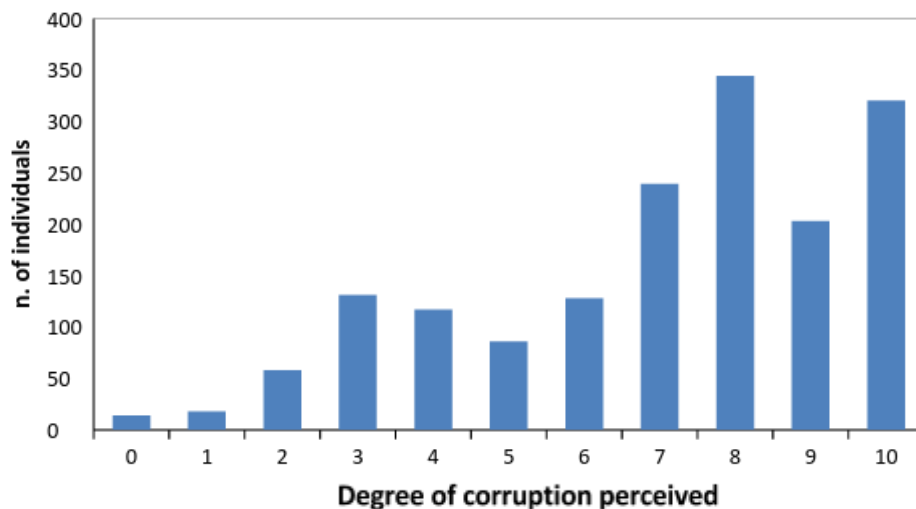


More than the 50% of respondents thinks that their regions registers levels of corruption included between 8-10 degrees on a scale up to 10.

The aim of the choice of having an internal and an external explanatory variable has to be intended as the willing to verify the degree of consciousness of respondent and try to assess the level of correlation that their actions have with their perceptions of others and to validate this perceptions through the comparison to an external index that does not depend from their *lens*.

The fact that the two variables are positively correlated (0.3678) means that the perceptions of the

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[21] N. CHARRON; L. DIJKISTRA; V. LAPUENTE, *Mapping the Regional Divide in Europe: A Measure for Assessing Quality of Government in 206 European Regions*, V. Soc Indic Res, 122:135, 2015.

respondents of the survey are somehow confirmed by the external index which measures the level of corruption by analysing the quality of institutions, respect for the law, performances of public administration and degree of accountability of the regions.

## 3.3 Results

The new dataset confirmed a positive correlation between individuals' past experiences, such as *whether they found a job through connections in the past* or *whether they used to cheat at school or would to* and future attitudes, such as, respectively, *whether they would find a job through connections again in the future* and *whether they would cheat at university too.*

In order to show the main results, the previously presented main variables will be considered: *attitude_bribe* and *attitude_bribe2* (i.e. *Corruptible*) to capture individuals' attitudes and behaviours and *EQI2013* and *corruption_level* as proxies.
On the line of the presented literature according to which corruption (in this case, micro corruption) is perceived as a collective action, the aim of this analysis was to understand whether some actions carried out by individuals are in some way the result of what they think to be the actions of others. The dataset of *EQI2013* has been merged with the survey one in order to explore whether places which register lower levels in terms of quality of institutions (and so, higher levels of corruption) correspond to the ones in which people are more willing to offer higher valued "bribes" .

The aim of the research is to show the existence of a new variable in order to explain the attitude of individuals to bribe, that is what people think of their regions (*corruption_level*) and what the regions are, according to external indices (*EQI2013*), confirming the existence of a sort of "contagion effect" that influences people in the moment in which they have to decide about how to behave in certain circumstances, as offering or not a bribe to a public official in order to obtain an administrative favour and how much to offer.
Even if the focus is on these relationships, other variables will be used to enrich the regression. Such variables are: *LogSchoolingexpPC; LogPublicordersecurity; LogGDPIncomePC*. Respectively, they represent: the amounts of investments and money spent by the regions (in per capita terms) for Schooling and Public order and the average per capita income within the same regions. The choice of their inclusion came after a vast literature which explained the traditional causes of corruption. In fact, in general, it has been shown that countries where people are more educated register lower levels of corruption. The same is true for economically richer countries[22]. Nevertheless, such variable can be useful in order to explain within-country differences instead of cross-counties ones.

In order to test the hypothesis, a *probit regression* has been created through STATA and has then been used in order to compute the *marginal effects* of the variables on the independent variable (*attitude_bribe2*, i.e. *corruptibility*)[23]. The two variables (*EQI2013* and *attitude_bribe*) are positively correlated.
The results of this new dataset confirmed the hypothesis according to which people are more willing to offer higher valued bribes if they live in a place where corruption is more widespread (positive effect of *EQI2013* on *corruptibility*).
To confirm that people are influenced by others' people actions, it has been decided to compare the effects of *EQI2013* as a *proxy* with the ones of the perception of the same respondents (*corruption_level*). The positive

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[22] Borra and Castelli (2012) highlighted anomalies in countries with certain specific characteristics, such as Italy.

[23] The *marginal effects* of the explanatory variables over the independent variable, i.e. the ones contributing in increasing (or decreasing) the probability that an individual is more or less *corruptible*, were showed in the probit table. As said, when people perceive higher level of corruption in their country the probability that they offer higher valued bribes to a public official in return of a bureaucratic favour increases.

relation, although to a lesser degree, holds[24].

The very low *p-values* related to the two variables (0.001) confirm that the effects are significant.

The effects of the other variables, that one can call *traditional effect* (in order to distinguish them from the newly introduced ones) confirm the hypotheses of the literature according to which for higher levels of income, countries (in this case, regions) register lower levels of corruption.

Also the effect of the expenditure in public order services confirms the literature according to which higher investments in this sector increase the capability of a State of controlling and contrast problems. In this specific case, the regions investing more in public security may be more effective in contrasting corruption or, at least for the effect on *corruptibility*, to make people more scary of being "discovered"[25].

The regression generated by the study is the following:

$$Corruptibility = EQI2013 + corruption_{level} - GDP\,Income\,PC - Public\,Order\,Security + \varepsilon$$

### 3.3.1 Additional results

A further analysis of the results showed different levels of perceptions among "northerners" and "southerners".

Through comparing the two columns (North and South) of the histogram that follows, in fact, one can early notice that the number of people thinking that their region correspond to a *8 degrees* level of corruption is almost the double in the South than in the North; more than four times in the case of *9 degrees*; more than five times in the case of *10 degrees* out of 10.

According to the southerners, the problem of corruption is very pervasive in their regions.



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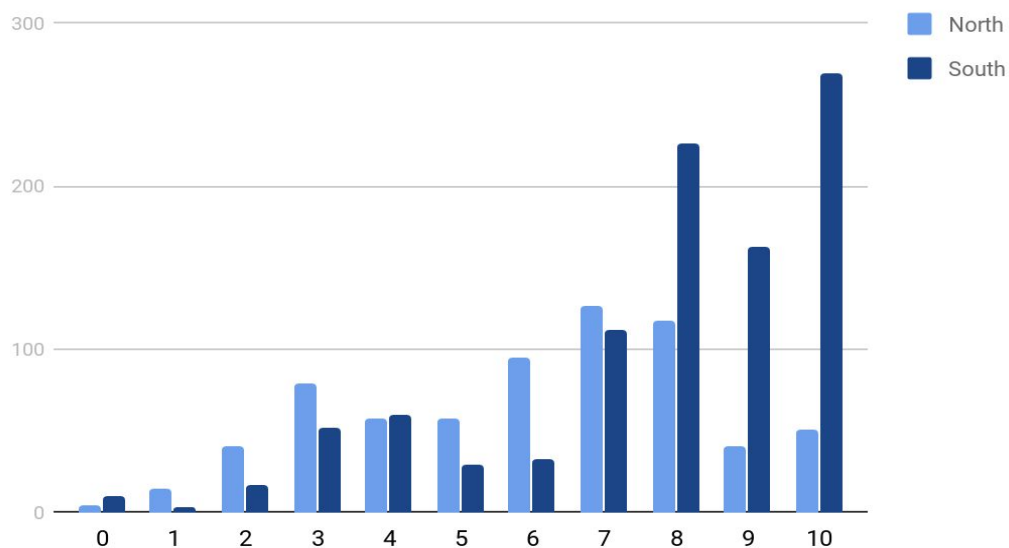
[24] In particular, a single unit increment in *corruption_level* correspond to an increase of 0,12% of *attitude_bribe2*. Since *corruption_level* has been transformed in order to be measured on a scale from 0 to 100, a single unit increment is a very small change. In order to better understand the result, an increase of 10 points in *corruption_level* produces an increase of 1,2% on *corruptibility*. As said, even stronger is the effect of *EQI2013* on *attitude_bribe2*. In fact, for a single unit increase of *EQI2013*, the *corruptibility* increases by 0,4% (that is 4% for an increase of 10 units out of 100).

[25] The forecasted effect of Schooling expenditure, instead, is not confirmed by the new dataset of respondents. This is why the related variable is not included in the regression.

These results gain even more importance if linked to the main model which explained the positive relationship between offering higher valued compensations to public officials (*attitude_bribe*) and the higher level of corruption perceived (*corruption_level*) or the scarce quality of institutions (*EQI2013*). In fact, if the so-called *contagion effect* works, it is even stronger for southern regions, since they are the ones with the worst perceptions.

To confirm this hypothesis, the fact that a total of 218 people answered that they think that, in order to survive to the surrounding environment in which they live, they have to behave dishonestly. More than half of these people is from the South of Italy.

The reason to be drawn can both support the hypothesis of lower levels of social capital[26] in southern regions and the contagion effect[27].

The perception of *illegal/immoral actions* as "collective actions" would be dangerous, especially if these perceptions and behaviours persist over time.


# CONCLUSIONS

It has been shown that corruption is a very discussed topic in recent years. Many global institutions are calling everyone's attention to the growth of this phenomenon. Together with the interest, the curiosity about finding the causes of corruption arises, especially for prevention and contrast scopes.

The traditional approach to the study of the phenomenon was focused on providing economic and political explanations of corruption. It is common knowledge, today, that more democratic countries and characterized by a history of openness to trade are less willing to experience a more pervasive corruption in their systems (Treisman, 2000) and that the same is true when the freedom of the press is well-established (Brunetti and Weder, 2003) and the society is not men-centred or their government enjoy a high share of women (Dollar et al., 2001; Swamy et al., 2001).

A further school of thought makes the hypothesis of the existence of a cultural reason behind more or less high levels of corruption perceived or experienced.
It has been shown, in fact, that when one compares the results of the traditional studies across-countries, the results may be ambiguous. Italy is one of the nation which register levels of corruption that are not in line with its economic and political characteristics (Borra and Castelli, 2012).

The investigation of the social context has been driven by the main studies about the topic, stressing on the concepts of social capital, contagion effect and conditional corruption.

A preliminary study confirmed a positive correlation between past and future actions of individuals whilst the main analysis of the new dataset brought to light the positive relationship between individuals' behaviours and the level of corruption both perceived by the same respondents and by an imported index (EQI2013) which measures corruption through analysing the regional quality of institutions. It has been shown, indeed, that the honesty of behaviours decreases when people find themselves in a more corrupted context.

Furthermore, several studies highlight that Italy is not only very different by other countries with the same characteristics but even within its same territory. The complementary study was intended to assess whether

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[26] Confirming Putnam (1993); Guiso, Sapienza and Zingales (2014); Casari et al. (2014).

[27] Supporting Dong et al. (2012); Fisman and Miguel (2006).

the differences across Italian regions are confirmed by the new dataset. No particularly relevant differences arouse except for the levels of corruption perceived by the respondents which appeared way higher for the residents of the southern part. This result is important in order to conclude that the contagion effect might be even stronger in those regions where the level of corruption perceived is higher.

This study does not pretend to explain the causes of corruption or to assess that future behaviours of people are accurately predictable.

It has been shown, in fact, that corruption is not the only issue which divides Italy. The slow process of convergence between regions does not allow to study independently the cultural phenomenon since some behaviours could be explained by the tentative to compensate lacks of the system (as shown in the case of health). However, taking into account the previous literature about social capital and the indices on the levels of participation across regions, and since the examples proposed in the survey represented very easy situations, there is room to think that the higher levels of corruption perceived by the southern citizens are reliable.

It appears reasonable to assume that prolonged-in-time bad perceptions about the place one lives in and the contagion effect are good potential creators of a culture.