
Anticorruption campaigns and the determinants of corruption in Europe

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Abstract: Several studies shows that corruption is a persistent phenomenon and that many anticorruption campaigns failed in the past. After a review of the literature of the determinants of the dynamic of corruption, our paper investigates the persisting of corruption phenomenon in Italy and in other countries. Econometric estimates, using statistics on crimes against the public administration at a provincial level, show that corruption campaign 'Clean Hands' started in Italy in 1990 has been effective to fight corruption. The main conclusion of our work is that anticorruption campaigns have permanent effects if they intervene at the same time on economic, political and cultural factors.

Keywords: corruption; anticorruption campaigns; political systems; social capital.

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1 Introduction

Corruption is a phenomenon, which has always characterised human societies. It is not of today that men are pushed by the ambition and the love of money to have a behaviour, which goes against the common good.

Many studies show that corruption could have a significantly negative impact on economic growth (Mauro, 1995, 1998; Bliss and Di Tella, 1997; Mo, 2001; Del Monte and Papagni, 2001). Corruption also reduces the legitimacy of government in the eyes of the governed (Anderson and Tdverdova, 2003) and could decrease the political stability. The level of corruption is a very important indicator of the quality of government, that is a key element to the ability of poor society to take advantage of the opportunities presented by relative backwardness. Therefore, the study of the causes of corruption is a very important topic, especially for backward areas.

It is alone in the last two decades that in Europe the problem of corruption has entered the agenda of national governments and international organisations. This happened in concomitance with the growth, from the end of the 1980s and beginning of the 1990s, of the number of judicial inquiries for corruption crimes in many European countries: France, Germany, Italy and Spain. It is likely that the end of the cold war was among the main causes of this explosion. For all the period in which the threat of Communism was real both the judicial power and the press of various European countries realised an auto-censure with respect to all those facts that, putting under discussion the institutional power, could have mined the political stability. These qualms came less after the fall of the Wall of Berlin; on the other hand, there was grown a new class of judges, who were not afraid to be entered conflict with the political power and who were drawing their strength from a public opinion not more ready to accept corruption practices hid for long time. The impact of the investigations on the corrupt business–government relationship was very strong in Italy. That is intelligible since not only in Italy, at the beginning of the 1980s, had a corruption level, following Transparency International's annual index of perceived corruption,¹ much higher than that of the other European countries but this level has gone growing. Italy in the early 1990, ranked on 54 countries, at the 37th place as corruption intensity; it was the last among the industrialised countries and was preceded by many developing countries.

On the other hand, even if with smaller intensity, the judicial inquiries have regarded other nations. The judicial inquiries concerning managers and the politicians in Germany were making write to *Der Spiegel* of January 18th, 1993: "the state the enterprise spoils has become the spoils of the parties and the parties". The judicial inquiries in Germany initially have regarded managers (the Opel scandal) and smaller politicians; then inquiries have reached the political tops with the opening in 1995 of that against the dealer of K. Schreiber crews, which took to the resignation of the chancellor H. Khol to have accepted funds in favour of the Christian Democrat party. In France at the beginning of the 1990s the judicial inquiries regard a series of public and private enterprise managers (the president of Yves Saint Laurent, of Renault, of Paribas, of Bouygues, of Elf Aquitaine), of the Socialist Bernard Tapie to reach then the Gaullists Chirac, and to the ex Foreign country Minister Roland Dumas. In Spain the judicial Socialist exponent inquiries and took to the electoral Felipe Gonzales defeat some 1990s in the half of the establishment.

Table 1 shows the values of the CPI index from 1980 to 2003 for some European countries. In the 1980s, Italy showed high corruption if compared to other industrialised countries and, at least according to this index, corruption increased in Italy till 1996 and subsequently decreased.

Table 1 Index of perceived corruption

	1980–1985	1988–1992	1996	2002	2003
Spain	6.82	5.06	4.31	7.10	6.9
France	8.41	7.45	6.96	6.3	6.9
Germany	8.14	8.13	8.27	7.3	7.7
Italy	4.86	4.3	3.42	5.2	5.3
Belgium	8.28	7.4	6.84	7.1	7.6
UK	8.01	8.26	8.44	8.7	8.7

Source: Transparency International.

The judicial inquiries have, therefore, undoubtedly affected the electoral events of the various interested countries, but it is less clear whether they, independently of the result of a trial, have success in fighting corruption or not. A very superficial look to data relative to Italy and Spain allows some optimism. In these two countries corruption, after having a net trend of growth up to the half the 1990s, decreased in relation to judicial inquiries.

The aim of this paper is to verify if these anti-corruption campaigns had success and if their effects will last in time, focusing on the case of Italy. The experience of many developing countries, characterised by widespread corruption, a low level of detection, and slow economic growth, in spite of deliberate attempts by the governments to deter bribery is not very encouraging. The case of a developed country as Italy is quite interesting as confirmation as much as highlighted in literature according to which only intense anticorruption campaigns could have a significant effect on the levels of regard corruption, but it is still to verify that the effects of this campaign will last long. Indeed, one may be worried that the systematic attack taken to the judicial power in Italy (already from the end of 1990) by many politicians and press would have success to spread the conviction that the judges have been moved from the desire to be the centre of attention and to change the results of the electoral mechanism. The weakening of the public opinion support in favour of judicial power may contribute to take back Italy towards those high levels of corruption, which only recently has removed.

The paper is organised as follows: Section 2 reviews literature on the factors determining the dynamic of corruption and use a standard model of dynamic corruption to analyse the effects of anticorruption campaign. Section 3 analyses the dynamic of corruption in a group of countries and the factors that could explain why the level of corruption of a given country changes very slowly. Section 4 deals with the economic causes and social and political events that could have affected the dynamic of corruption in Italy. Section 5 presents the estimation of the effects of the anticorruption campaign of *Mani Pulite*. Section 6 concludes.

2 The dynamics of corruption

One of the most interesting facts about corruption is that it varies greatly not only across countries but also during time within a given country. Some authors (Myrdal, 1968; Huntington, 1968) expect that, in the early stages of development, changes in social and economic systems generate greater opportunities for corruption. This explains the increase in corruption that is commonly assumed to have taken place in recent times with the gaining of independence and the transition from colonial status to self-government. We could expect rapid modernisation of undeveloped societies to increase corruption and only when market forces are well developed and society is governed by rational calculations of costs and returns corruption will decrease. From this theory we could expect, *coeteris paribus*, an inverted U relationship between corruption and economic development. In the early stage of growth corruption increases and then, after reaching a peak, it will decrease with the increase of economic development (Treisman, 2000). Therefore, we could expect a convergence in the level of corruption among countries, at least in the long run.

In contrast with the above explanations, other theories (Andvig and Moene, 1990; Rose-Ackerman, 1999) emphasise that the same socio-economic structure can give rise to different levels of corruption. In such models the expected profitability of engaging in a corrupt transaction, as perceived by a particular individual, depends on how many other individuals in the organisation or society are expected to be corrupt. There are many reasons why differences in profitability change as corruption changes:

- it is more difficult to detect a corrupt transaction as corruption increases because the capacity of public investigations and prosecution may be strained
- internalised moral feelings of guilt by breaking the rules decrease as the number of rule breakers increases
- when many others engage in corruption the loss of reputation when discovered is likely to decrease.

It is also possible that when the level of corruption is low or not very high it is positively correlated with corruption in the past period and, after a peak is reached, there is an inverse correlation.

This explanation was formalised by Andvig and Moene (1990). In their model it is assumed that the expected punishments for detected corruption decline as more officials become corrupt because it is cheaper to be discovered by a corrupt than a non-corrupt superior. This model generates two stable stationary Nash-type equilibria and highlights how the profitability of corruption is positively related to its frequency and how a transparency shift may lead to a permanent change in corruption. The theoretical model of Andvig and Moene could explain how an anticorruption campaign, by increasing both the moral cost of the bribe and the probability of being discovered, could shift an economy from a high to a low equilibrium point of corruption. On the other hand, a stable increase in corruption could be the result of a process of weakening the political institutions and the sense of loyalty to organised society. The spread of corruption among minor officials could stem from a deterioration of the morals of some politicians and higher officials. In this case, it must be explained why there were such changes in social norms. A possible explanation is that they are caused by changes in the political system

(i.e., from democracy to dictatorship and vice versa) that affects the structure of the incentives to corruption (Golden, 2000).

The above mechanisms have the potential to make corruption self-reinforcing. History has a prominent role to determine corruption: past levels of corruption affect the current corruption level.

If we assume that moral cost of corruption are distributed between officials according to a cumulative density function we could have, in relation of the characteristics of the function, one (Figure 1) or multiple equilibria (Figure 2).

In Figure 1 the curve M describes the time path of $C(t)$ as function of $C(t-1)$. In Figure 1, a straight line is drawn making a 45° angle with both axes. If anticorruption campaign increases moral costs of corruption the M curve could shift downward and the time path will cross the 45° line in point Z' lower than Z . The economy converges to a lower level of corruption. But if anticorruption campaign does not affect the time path, but will act as a shock that decreases temporarily corruption, we will expect that after a while corruption will start again to growth.

In Figure 2 the time path is an S-shaped curve that allows three points of equilibrium; stable low-corruption equilibrium (A); a stable high-corruption equilibrium C; an instable equilibrium in between (B). If the anticorruption campaign is successful but not very strong the time path will shift downward, but we still have multiple equilibria and the new high stable corruption equilibrium will have a lower value than the old one.

Figure 1 The time path of corruption with stable equilibrium

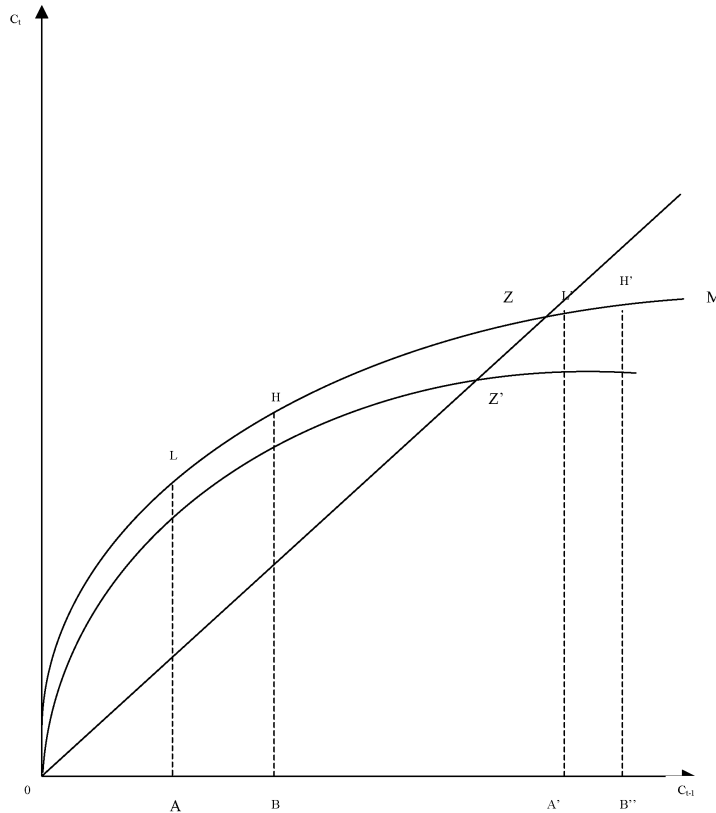
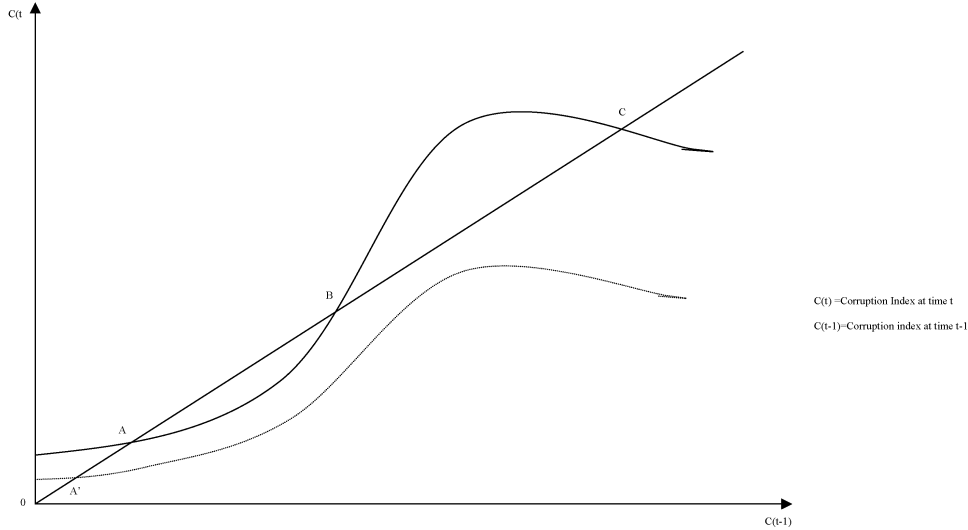


Figure 2 Corruption and multiple equilibria

A very strong anticorruption policy that moves the time path down the dotted line is required in Figure 2 to eliminate the high-corruption equilibrium and allow a country to move in the direction of the low-corruption equilibrium. Small changes in institutions that moves the time path down could reduce for while corruption but the country will still be caught in the corruption trap and will stay in a high-corruption equilibrium.

Another interesting question that arises when one compares corruption in different countries or regions is about the relationship between the change of corruption and the initial level of corruption. In the case of one stable equilibrium (Figure 1), there is an inverse relationship between the change of corruption and the initial level of corruption. Assume that we have two regions (countries) and region A is less corrupt than region B. The two regions have similar institutions and move along the same time path. Both regions converge toward the equilibrium point Z and the rate of growth of corruption is higher in A than B. Therefore, we will expect positive rate of corruption and an inverse relationship between the growth of corruption and initial level of corruption. If, on the other hand, the level of corruption of region A and region B is at the left of the equilibrium point Z, the two regions will converge toward equilibrium Z and less corrupt region will be characterised by a decrease in corruption, lower in absolute value, than that of the more corrupt region. Corruption in more honest region will decrease at a lower rate than in the less honest one.

We will expect that in a country where regions have a different level of corruption and the time path is that of Figure 1 if the anticorruption campaign is effective, the decrease of corruption will be in absolute value lower in less corrupt region, and the effect of the campaign will be positive and permanent with less corrupt regions growing at an higher rate than the more corrupt one.

Suppose of estimating the rate of growth of corruption for a group of countries or regions, which has the same time path. If these countries (regions) have one stable equilibrium (Figure 1), we will expect a negative sign of b , the coefficient of the logarithm of the initial value of corruption.

$$\log\left(\frac{C_{it}}{C_{i,t_0}}\right) = a + b \log C_{i,t_0} + dS_i + U_{it} \quad (1)$$

where

- i : is the region
- t : is the final year
- t_0 : is the initial year
- U_{it} : is a random variable
- C_{it} : is the level of corruption of region i at time t
- C_{i,t_0} : is the level of corruption of region i at time t_0
- S : is a vector of control of variables.

When there are multiple equilibria, as in Figure 2, it is more difficult to say a priori what is the sign of the relationship between the rate of growth of corruption and the initial value of corruption. If the two regions have levels of corruption not very different, and not very far from the stable equilibrium, an inverse relationship still will hold. But if one region is in proximity of the low-corruption equilibrium and the other is in proximity of the high-corruption equilibrium we cannot say anything about the relationship between the rate of growth of corruption of a region and its initial value.

In order to evaluate empirically if an anticorruption campaign has determined temporary or permanent changes of corruption we propose the following methodology. The first step does consist in estimating the time path of corruption; then, it is possible to compute the steady state values before and after the beginning of the anti-corruption campaign; last, one has to compare these steady state values. If the equilibrium value relative to the period after the anti-corruption campaign is smaller than that relative to the period before it is possible to argue that the anti-corruption campaign has been successful.

Empirical analysis could help to elucidate some of the problems that the above analysis has shown.

3 The persistency of corruption: an empirical analysis

An important aspect of corruption is that it has proved to be remarkably persistent. The main reason is that, as Andvig and Moene model shows, higher is the diffusion of corruption lower is the incentive for individuals to be honest. In this section, we will perform a descriptive analysis of the problem of convergence in the level of corruption in a group of 54 countries. In Table 2, we considered for a group of 21 European countries the value of Transparency International Corruption Perceptions Index during the periods 1980–1985 and 2000–2005. The index shows a substantial stability of corruption in the periods considered, also if some large variations could have been happened in between.

Table 2 Transparency international corruption perceptions index 1980–1985 and 2000–2005, European countries

	<i>1980–1985</i>	<i>2000–2005</i>	<i>Δ of the index</i>
Norway	8.41	8.80	0.39
Switzerland	8.41	8.90	0.49
Netherlands	8.41	8.80	0.39
France	8.41	6.95	-1.46
Ireland	8.28	7.33	-0.96
Belgium	8.28	7.40	-0.88
Finland	8.14	9.52	1.38
Germany	8.14	7.85	-0.29
Denmark	8.01	9.39	1.38
Sweden	8.01	9.18	1.17
UK	8.01	8.65	0.64
Austria	7.35	8.23	0.88
Spain	6.82	7.03	0.21
Czech. Rep.	5.13	4.03	-1.11
Russia*	5.13	2.65	-2.48
Italy	4.86	5.08	0.22
Portugal	4.46	6.43	1.97
Greece	4.2	4.28	0.08
Turkey	4.06	3.25	-0.81
Poland	3.64	3.63	-0.02
Hungary	1.63	4.88	3.25

*URSS during the period 1980–1985.

Source: Transparency International.

In Table 3 we considered the group of 54 countries for which it was possible to build the Transparency International Corruption Perceptions Index starting from 1980. Three states of corruption are considered: low (value from seven to ten), medium (value from four to six), high (value less than four). The three states are on the first vertical column. On the rows there is the percentage of countries that, for each state, changed the value of the index of corruption from 1980 to 2005. Such changes could be positive or negative.

Table 3 Persistency of corruption

<i>State of corruption, 1980–1985</i>	<i>Negative changes</i>				<i>Positive changes</i>				<i>Total Absolute value</i>
	<i>4–3</i>	<i>3–2</i>	<i>2–1</i>	<i>1–0</i>	<i>0–1</i>	<i>1–2</i>	<i>2–3</i>	<i>3–4</i>	
High	–	–	–	0.18	0.35	0.35	0.06	0.06	17
Medium	–	0.31	0.13	0.25	0.25	0.06	–	–	16
Low	–	0.05	0.05	0.29	0.43	0.19	–	–	21

Distribution of changes (percentage) in the value of corruption perception index during the period 1980–2005 by country's level of corruption in 1980–1985.

High Level of corruption: value of corruption perception index 0 – <4

Average Level of corruption: value of corruption perception index 4 – <7

Low Level of corruption: value of corruption perception index 7–10.

As expected, 82% of countries with high level of corruption registered a decrease in the level of corruption. But 69% of the countries with medium level of corruption experienced an increase in their level of corruption. On the other hand, 62% of countries with a low level of corruption registered a decrease in the level of corruption.

A possible interpretation of these results is that countries with high level of corruption could, through adequate policies, decrease corruption and eventually go to the state of medium corruption. But, once that a country is in this state, there is a high probability that it will return to the situation of high corruption. On the other hand, the probability that a country with low corruption fell in a state of higher corruption is low.

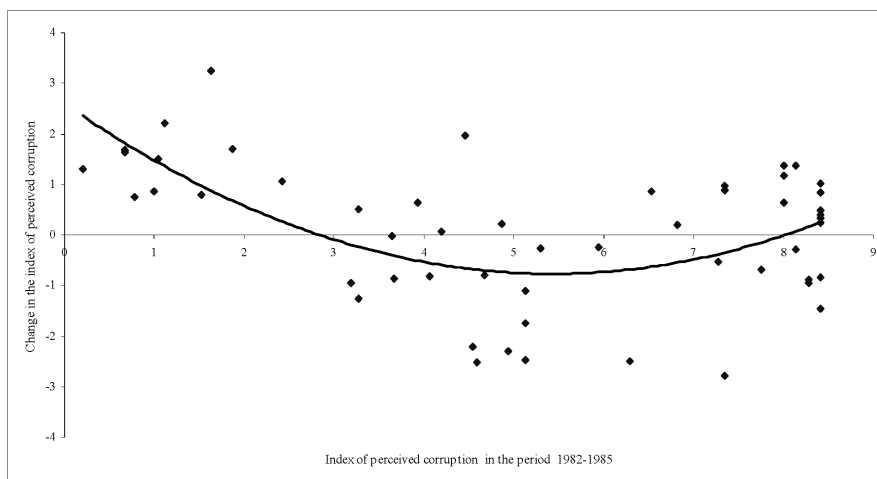
Therefore, the hope that with anticorruption campaigns corrupted countries could decrease substantially their corruption in few years is very low.

In the sample of 54 countries there is no linear negative relationship between the change in corruption and the initial level of corruption. Our data do not confirm the hypothesis that high-corrupted economies tend to have a decrease in corruption faster than low corrupted economies, as modernisation theories would expect, at least once is reached a given level of development. The relationship between the positive change in corruption (decrease in corruption) and initial level of corruption is not linear (see Figure 3). The changes in corruption are not linearly correlated with the initial state of corruption. Descriptive analysis shows that there is a corruption trap from which it is very difficult to exit. Figure 3 and Table 3 give an evidence of this corruption trap:

- high-corrupt country has a high probability to pass to a medium state of corruption and then fall again in the high-corrupt state
- an average corrupted country have an higher probability to fall in a state of high corruption than to pass to a state of lower level of corruption
- a low corrupt country has a very high probability to stay in this state.

A more robust analysis is done in the following, when we will examine the Italian case, because we have information on the level of corruption for Italian provinces and for a quite long period of time.

Figure 3 Absolute change in the level of corruption during the period 1985–2005 relative to the level of corruption in 1985



4 The determinants of corruption: the Italian case

4.1 Corruption in Italy

In a book published in 1974 on the peculiarities of the Italian political system (Cavazza and Graubard, 1974) there were several essays on the mechanisms that have resulted in the stability of the Italian political system, on the one hand, and the inefficiency of public administration, on the other. One of the most important mechanisms was the system of political patronage, in Italian called *clientelismo*, that allowed groups of citizens linked directly to politicians to reap high rewards through special laws (*leggine*) or through political appointments. Such rewards and appointments were not aimed at enhancing efficiency or recruiting professional expertise. The interaction between politicians, bureaucracy and groups of citizens directly linked to politicians was a characteristic of the Italian political system, but it was only in the early 1970s that political corruption began to spread.² So, in the book corruption was never considered a major problem of the Italian economy.

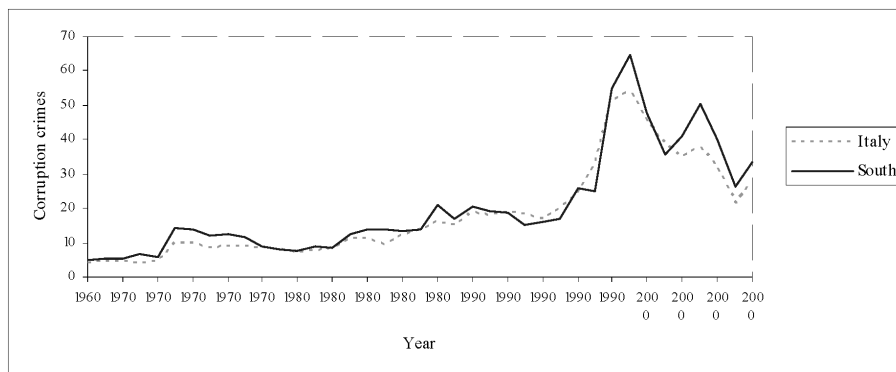
However, in the 1980s corruption began to be seen as a problem and a growing number of citizens became intolerant to its spread (Cazzola, 1988). The different emphasis laid on corruption in the two periods, from the Second World War to the 1970s and later, is probably caused by the much higher spread, in the 1980s, of bribes in relations between citizens and public administration.

4.2 The dynamics of corruption crimes since 1963

The statistical evidence for this increase in corruption is given by the amount of corruption crime per capita detected by Italian law. The number of crimes against public administration that we consider is based on Statutes No. 286–294 (ISTAT- Annals of Judicial Statistics). We exclude other statutes of crimes against the P.A. that do not involve crimes of corruption such as Statute 279—insulting a public officer (*oltraggio al pubblico ufficiale*)—or Statute 295—neglect or refusal of an official duty (*omissione o rifiuto di atti di ufficio*).

This index is available for the period 1963–2001 and its dynamic is shown in Figure 4. The figure shows the number of corruption crimes, on a per capita basis, in Italy and in the Mezzogiorno.

Figure 4 Crimes of corruption in Italy and Southern Italy in the period 1963–2001



The index is not a measure of real corruption crimes, but only of the crimes reported to the police, and hence it has the drawback of underestimating the true phenomenon. Two other important criticisms could be levelled at the use of this index to evaluate the dynamics of corruption. First, many corruption crimes reported in year t were committed in year $t-x$. Therefore, such crimes may have been committed under different circumstances (i.e., the institutional/legal framework when the crimes were committed was different from the year of the report). Secondly, an increase in the number of recorded crimes does not necessarily mean that the real number of crimes has increased. There may have been only an increase in willingness to report crimes or the reporting capacity of the police/judicial legal institutions may have improved.

In the Italian case the first criticism does not apply as there was—at least until 1993—no change in the law on corruption. After 1993 the only important change in the law on corruption was the increase in penalties. As regards the second point, we checked the dynamics of the index based on reported crimes against that of another index of corruption widely used in econometrics.

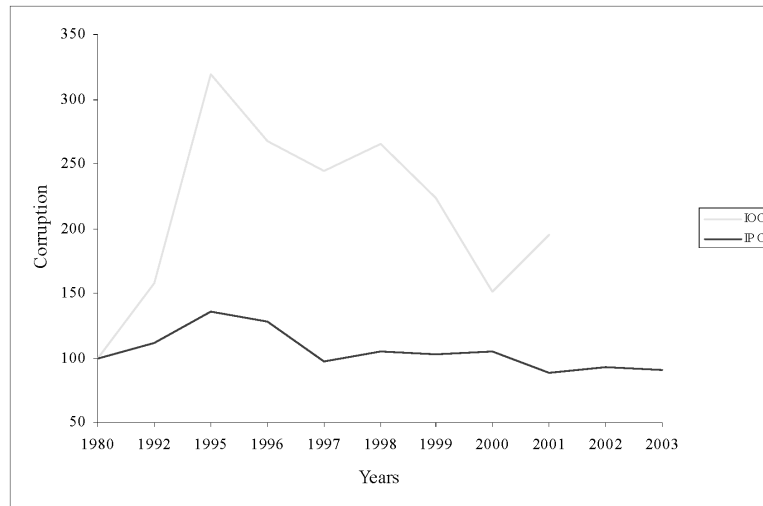
This second index is the Transparency International’s annual index of perceived corruption (CPI). This index is built using a series of surveys and is thus not subject to the criticism levelled above. Transparency International and Goettingen University have published historical data from 54 countries in all. Transparency International’s annual index of perceived corruption is available only from 1980.

In Table 4 we compare the performance of the two corruption indexes in the last two decades. The number of corruption crimes is compared with an index given by (10-CPI). We call the first index IOC and the second index IPC. For both indexes we have set the 1980–1985 value at 100. Interestingly, the dynamics of both indexes (Figure 5) are very similar in the period 1980–2000. Both indexes show an increase in corruption till 1995, and then a decrease after this year.

Table 4 Indexes of corruption in Italy in the period 1980–2003

<i>Years</i>	<i>Perceived corruption index = 10-CPI</i>	<i>Corruption crime per capita</i>
1980–1985	100	100.00
1988–1992	111	157.6
1995	136	319.2
1996	128	268.1
1997	97	244.4
1998	105	265.3
1999	103	224.2
2000	105	150.6
2001	88	195.1
2002	93	N.A.
2003	91	N.A.

Base year 1980–1985 = 100. N.A. means not available.

Figure 5 A comparison of the time-series of two corruption indexes for Italy

The correlation coefficient between these two indexes during the period 1995–2001 amounts to 0.70 and seems quite high if we take account of major differences that lie behind the construction of the two indexes. In fact, while the IOC is made up by counts of crimes, hence every crime has the same weight, the CPI derives from surveys of opinions that are qualitative in nature even if they are summarised in a quantitative index. The fact that the index of corruption based on official data has a similar trend to that based on surveys reassures us that the former captures the real phenomenon.

Another possible criticism of the index based on corruption crime per capita is that it could be affected by a systematic bias owing to differences among regions between the actual number of corruption crimes and the number reported and detected by the police. Empirical evidence shows that we might expect modest systematic differences between regions in the proportion of detected corruption crimes to actual ones.³

4.3 *The causes of corruption in Italy*

There are three main aspects of corruption shown in Figure 5. The first is that corruption crimes in Italy increased steadily between the mid 1980s and the first half of the 1990s. The question, which needs answering is why Italy shifted from a system of political patronage, that is a form of constituency service that uses the power of politicians over public administration to benefit specific named clientele, to a system of political corruption that involves legislators, bureaucrats and businessmen.

The second aspect is that corruption is higher in southern Italy than in northern Italy. So one must explain the differences in the level of corruption between North and South. The third aspect is the decrease in corruption after 1993. This decrease could be a consequence of the so-called *Mani Pulite* (Clean Hands) campaign that probably affected expectations on the profitability of corruption, as people saw that legislators, administrators and the judges were intent on enforcing the integrity of public officials at all levels. After 2000, the decrease in the level of corruption in Italy stopped.

Therefore, an explanation of corruption in Italy must deal with these three aspects. There could be many possible causes behind the spread of corruption in Italy, such as the rise of federalism, the increase in state intervention and the rise of a new ruling class without the ideals of politicians who built the Italian Republic after World War II.

Recently Golden (2000), suggested that in the 1970s there was a large exogenous increase in the incentives for political corruption both from the demand and the supply side. The reasons pointed out by Golden were the following.

- The passing of a law on the funding of political parties in 1974 that prohibited public companies from donating money to political parties or electoral campaigns. By making such donations illegal, the law on public financing criminalised existing practices.
- The change in the leadership of the Socialist Party, a very important ally of the government, that for a variety of reasons transformed Italy's political system in the 1980s into one characterised by massive political corruption.
- The collective incumbency advantage of the *Democristiani* (Christian Democrats) had by the late 1970s become stronger than ever. There was a belief—perhaps most notably among Socialist politicians—that Italy had no genuine political opposition or alternative government, and that governing parties were invulnerable. As a result, facilitating services could be priced.
- The lack of foreign competition for government contracts gave Italian firms the economic possibility and the incentives to pay the bribes expected of them.

Besides the above causes a very important one could be the rise in corruption linked to the institutional development of federalism in Italy. In the last 30 years Italy has gone through many institutional reforms from a highly centralised model to a decentralised one. The 1948 constitution considered five 'special regions', three located on national borders (Val d'Aosta, Trentino-Alto Adige, Friuli-Venezia Giulia) and two islands (Sicily and Sardinia). The law to create 'ordinary regions' was passed in 1968 and the first regional councils were elected in June 1970. Two years were required for central government to issue decrees transferring powers, funds and personnel to regions, so that only in 1972 were regional governments operative. In 1985 Law 382 was passed authorising the decentralisation of important new functions to the regions. Central authorities retained general powers of 'direction and coordination' over regional affairs but most regional funds came from the centre in the form of general purpose and special purpose transfers.

Decentralisation of functions and central allocation of resources made politicians irresponsible and reduced incentives to allocate resources efficiently. For politicians the probability of being elected was much more linked to the number of *favori* (favours) that they could offer their 'clients' than to the efficiency of public expenditure and the probability of being apprehended.⁴ Further decentralisation increased the number of politicians: the new entrants had to fund their own electoral campaigns and were driven to use resources from bribery to do so. As taxes and benefits were the exclusive domain of national government, local politicians were much more interested in obtaining more resources from central government than using them efficiently. The decentralisation of functions from central governments to local governments (the power to issue licences, the power to hire new staff, the power to choose the projects to finance, etc.) increased the opportunities of corruption (Amato, 1982; Cassese, 1986).⁵

All the above causes decreased the cost of corruption and, in the framework of the Andvig and Moene model, a self-reinforcing mechanism of corruption started. Italy began a path toward a higher level of equilibrium of corruption that resulted in the dynamics shown in Figure 1. The peak was reached in 1995, and after that year corruption decreased. The reasons of this decrease mainly lie in institutional change. In Italy, as in other European countries, the wave of opinion against corrupt practices started at the beginning of the 1990s and peaked in the second half of the decade. Moreover, in the first half of the 1990s, in Italy was realised the strong anti-corruption campaign of *Mani Pulite*; the number of trials per corruption crime had already increased steadily from year 1989. The reaction of the public at large led to the downfall of the two main governing political parties, the Christian Democrats and Socialists. Corrupt practices that were tolerated as long as the danger of communism prevented any serious challenge to institutional power were no longer accepted after the fall of the Berlin Wall. But in Italy there were also economic reasons for the campaign against corruption. For the Italian economy the cost of corrupted practices had become increasingly high and it was one of the causes of the very large budget deficit.⁶ Thus, ordinary citizens and business people supported magistrates investigating cases of political corruption. By the end of 1995 Italy's anticorruption magistrates had gone on to arrest more than 1300 top business people, civil servants and politicians. We will analyse deeply in Section 5 the effects of the anticorruption campaign on the diffusion of bribery. Italy's indexes, based on detected crimes, probably recorded the change in trend with a delay of one or two years.

Another reason for the decrease in corruption is owing to the institutional change of the electoral system. In 1993 Law 81 changed the system to make the Mayor, the President of the Provincial Authority and the President of the Regional Authority electoral offices. The new system made the mayor and other presidents much more independent of political parties and therefore more able to resist the pressure of lobbies than in the past. The new system weakened the extensive use of political patronage, one of the most important determinants of corruption (Geddes, 1997).⁷ Therefore, one would expect the new reform to reduce corruption. Other reasons are connected with the decrease in public expenditure.

4.4 *The determinants of differences in corruption across Italian regions*

The changes in the dynamic of corruption are only one part of the story as there is another aspect related to differences in corruption across regions. Figure 4 shows that there are great differences in the level of corruption between northern and southern Italy. A possible explanation is that these differences are caused by cultural reasons. The interesting thing is the persistence of such differences during the period 1963–2001.

Many studies have shown that the distribution of civic values among Italian regions is not uniform: in this distribution the gap between North and South has been exemplified in the 'amoral familism' theory: "Maximise the material, short-run advantage of the nuclear family: assume that all others will do likewise" (Banfield, 1958). Putnam (1993) computed the level of 'civic-ness' of each of Italy's 20 regions in 1970 and found a lower index in southern Italian regions and remarkable concordance between the performance of regional governments and the degree to which social and political life in those regions approximates to the ideal of civic community.⁸ He found a parallel between the various

regimes that characterised Italy at the beginning of the 14th century and the distribution of civic norms.⁹

On the other hand, it could be maintained, following the modernisation theory that corruption in southern regions is higher because they are undergoing the process of modernisation that northern regions have already experienced.

Another reason for the differences in the corruption level between Italian regions could be the greater state intervention in the South. In Italy state intervention was quite high and increasing until the end of 1980s. In the southern less developed regions after the Second World War the state intervention was heavier than in northern regions. The share of public consumption on GDP was much higher for southern regions than for northern regions and at least until 1990 the southern regions received a higher level of public investment per capita. Hence, if public expenditure has an influence on corruption, higher corruption in Southern regions should be accounted for by variables that measure the extent of public policy. Even if by the end of the 1980s and in the 1990s the weight of the state in the economy reduced, the privatisation process¹⁰ gave new opportunities for corruption.

Another variable that could explain the difference in corruption across regions is related to the degree of competition between political parties. We could expect a higher level of corruption in regions dominated for long time by one political party.

In a recent work, Del Monte and Papagni (2006) estimated an econometric model of the causes of corruption in Italy of which we give the main results in Table 5.

- *Level of development.* There is an inverted U relationship between the diffusion of corruption and the share of agriculture value-added¹¹ (proxy for the level of development). This result accords with international evidence that is based on different indicators of corruption (Bardhan, 1997).
- *Public intervention.* There is a positive effect of public expenditure for consumption goods on corruption. Also the squared value of public consumption enters estimates with significant parameters. (The result accords with the Acemoglu and Verdier (2000) model). The coefficient of expenditure on public infrastructure was not significant.
- *Civic virtues.* In regions where the majority of population usually participate in national elections (low absenteeism), there is lower diffusion of illegal behaviour in public administration.

Voluntary Organisations (seen as proxy of social capital) have a negative influence on the level of corruption. Larger the number of voluntary organisation p.h. lower is the level of corruption.¹²

- *Political competition.* Estimated parameters strongly justify the drawing of a U-shaped relation between corruption and political concentration. This result accords with a view of political competition and lobbying where fragmentation and high concentration are both negative contexts and virtue lies in the middle.

Table 5 Relationship between the level of corruption in Italy, socio-economic variables

<i>Factors</i>	<i>Theoretical hypothesis</i>	<i>Econometric estimation</i>
<i>Socio cultural theories</i>		
Electoral Absenteeism	+	+
Vigorous civic associations	–	–
Degree of economic development (share of agricultural value added on total value added)	?	+
		(non-linear)
<i>Political theories</i>		
Decentralisation	+	Not significant
Political concentration	+	+
		U relationship
<i>Economic theories</i>		
Weight of public administration in the economy	+	
Public consumption expenditure p.h	+	+
Investment in infrastructure p-h	+	Not significant

+Positive correlation between the degree of corruption and the intensity of considered variable.

–Negative correlation between the degree of corruption and the intensity of considered variable.

5 The effect of Clean Hands on the level of corruption in Italy

There is a widespread opinion that the Clean Hands' anticorruption campaign had a positive effect on corruption.

In a survey conducted at the end of 1993 among 786 Italian young entrepreneurs, 42% of them declared that corruption had been greatly reduced, 40% slightly reduced, 6% declared that the phenomenon of corruption had disappeared and 13% declared that the intensity of corruption was the same as before.¹³

A systematic analysis of the relationship between corruption and public spending and of the impact of Clean Hands on the level of corruption has been developed by Acconcia and Cantabene (2006), using a panel data set for Italian regions and provinces over the period 1980–2001. In particular, the paper documents a story of success in deterring corruption, showing that the relationship between corruption and public investment in infrastructure is positive and statistically significant before Clean Hands, while it is no more statistically significant in the second half of the 1990s (Cantabene, 2005).¹⁴ The authors use two proxies of bureaucratic corruption: the number of corruption crimes prosecuted (at provincial level), and the number of public officials convicted for the crime of embezzlement (at regional level). The authors, using different types of estimators, find that mainly investment in social infrastructure (public buildings, swamp and land reclamation) and public spending in social security have tempted public officials to become corrupt, and that Clean Hands had success in deterring corruption because it broke up the perverse relationship between public expenditure and corruption.

Similar conclusions are reported in Table 6. We use the methodology described in Section 2 in order to evaluate the effect of Clean Hands, running cross sectional regressions separately for the period before Clean Hands (1980–1994), and for the period after Clean Hands (1995–2001). The corruption index, C , is represented by the number of recorded corruption crimes, for which the judicial authority has begun the penal action, relative to the population. Differently for the estimation of the determinants of corruption in Italy, discussed in the previous section, we will use provinces and not regions as observations. This allows us to exploit the spatial dimension of the phenomenon using a large set of observations; indeed we have 80 observations in the period 1980–1994 and 94 observations in the period 1995–2002. In order to evaluate the time path of corruption before and after the anticorruption campaign, we estimate the following equation for the two periods (before and after Clean Hands)

$$\log \left(\frac{C_{it}}{C_{i,t_0}} \right) = a + b \log C_{i,t_0} + u_t \tag{2}$$

where i represents the province and t the year.

Table 6 The effect of Clean Hands: estimated results

<i>Period</i>	<i>Log C_{i,t0}</i>	<i>Constant</i>	<i>N.Obs</i>	<i>R²</i>	<i>Steady state value</i>
1980–1994	–0.8521 (–9.33)	–2.4867 (–5.76)	85	0.47	0.053
1995–2002	–0.6434 (–7.41)	–2.4168 (–8.30)	94	0.30	0.023

Log C_{i,t_0} = logarithm of the index of corruption at the initial time (1980 or 1995).
Values of t -statistic in parentheses.

A problem could arise when using a convergence equation in order to estimate the steady state value of corruption, because in different provinces corruption does not necessarily converge to the same steady state. However, the provinces share a common central government, have similar institutional set-up and legal system, thus they exhibit similar initial conditions, allowing us the estimation of equation (2). Arguably, the estimation of a convergence equation for corruption is more likely to apply across provinces within a country than, for example, across countries.

The coefficients of the initial level of corruption are significantly negative in both periods, hence there is a significant tendency towards convergence in the level of corruption across Italian provinces and the R^2 of the regression before Clean Hands is 0.47. Moreover, we argue that there is a stable equilibrium since the time path generated by the estimated equations is damped without oscillation. According to the methodology previous described, we calculate the steady state values of corruption in the two periods and then we compare them. The equilibrium value (0.053) is higher for the equation estimated before Clean Hands than for that estimated for the period after the start of Clean Hands (0.023). This result shows that the effect of Clean Hands is not temporary.

The first criticism that could be done to our analysis is that we do not consider control variables in the econometric specification. Therefore, the difference in the steady state values could be caused by changes in other variables not linked to Clean Hands. According to the theory, economic and cultural variables may affect corruption. However, specific economic variables that could have influence on corruption were also

affected by Clean Hands. For example, after Clean Hands there was a fall in the price of public works measured in physical units. Therefore, when using public works as control variable an endogeneity problem could arise. Moreover, to correctly estimate the effect of public works on corruption one has to use physical units and not monetary units at fixed prices. The problem of how to measure public works could be of particular relevance in a cross-section estimation before and after Clean Hands, because in this case differences in the two periods between physical and monetary value could determine biased estimation.¹⁵

Cultural variables may be important in Italy, a country characterised by differences in cultural values between Southern and Northern provinces, thus to take care of such differences could be correct. Unfortunately, we do not have data about such variables in the two periods at level of province. However, it could be correct do not take care of such differences if one assumes that Clean Hand affected with same intensity Northern and Southern Regions.

We argue that Clean Hands was a social phenomenon which determined a wave of popular indignation that changed the Italian Political System (see previous sections) and increased moral cost of corruption, not only the probability of punishment. As we consider Clean Hands a social and not only a judicial phenomenon, we think it is more correct to estimate the relationship between the rate of growth of corruption and its initial value without add control variables.

6 Conclusions

Our paper investigated the persisting of corruption phenomenon in Italy and in other countries. The main conclusion of our work is that anticorruption campaigns have permanent effects if they intervene at the same time on economic, political and cultural factors. The incentive structure faced by bureaucrats, member of government, people engaged in market exchange is the results of the above factors and one must intervene on all of these to fight corruption in an effective way.¹⁶

The experience of an industrialised country, as Italy, which is characterised by a set of constitutional rules typical of the Democracies in Western World, shows that economic and political factors alone could not prevent that industrialised countries fall in the corruption trap. Summarising, the Italian experience shows that:

- An industrialised country could fall in a corruption trap.
- Cultural and institutional variables (simplifying and increasing the transparency of public administration, choosing public administrators on the basis of merit and not of political links, and approving a law that prevents corrupt politicians being reelected after initial proof of guilt) are more important than economic variables in shaping the incentive structure that favour corruption. Such institutional changes are very important to create a favourable climate to fight corruption; economic incentives, alone, are extremely unlikely to be a solution to the corruption problem.
- A successful anticorruption campaign must intervene at the same time on economic and political-cultural variables.

On the other hand, our paper shows that, on the basis the Transparency Perception Index, some democratic country scores less than some dictatorial (or less democratic) country. In 2003 Singapore, where a single party held the power from the independence, was less corrupt than most industrialised countries and Botswana, where a single party held the power for more than 30 years was less corrupt than Italy, Greece, South Korea and Brazil, etc. In Asia, China that is a one party country, scored better than India that is a democracy. In one party country if members are highly motivated to national welfare government members could behave more as benevolent autocrats than as kleptocrats (Myrdal, 1968, p.938). We agree that in most cases a stable democracy limits the incentive of corruption, but if each follows its own interest the democracy will be chaotic and opportunities of corruption will increase.

The same is true for economic factors alone. In the Italian case a reduction in the state economic intervention in 1990 has been much less important than institutional changes and anti-corruptions campaigns as Mani Pulite to fight corruption. We must also remember that USA, the country considered the example of free market economy, scored only in 18 positions as value of the Transparency International Corruption Perception Index, when countries where the state economic intervention is much higher, as Finland, Singapore and Sweden scored much better.

Cultural factors that could have effect on civic virtues could have a very great importance in explaining differences in corruption. In Italy differences in civic virtues could explain the gap in the level of corruption between Northern and Southern regions.

Therefore, a permanent decline in corruption could occur only when institutional structure and educational practices supported by precise non-discretionary rules and procedures for political, administrative and economic decisions will be created. Changing in the ruling party alone or economic reforms alone could not change the incentive structure that lead to corruption.

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Notes

- ¹The index is constructed by a team of researchers at Goettingen University from a number of annual surveys. The index relates to the perceptions of the degree of corruption as seen by business people, risk analysts and the general public and ranges between ten (highly honest) and zero (highly corrupt). The Transparency International's annual index of perceived corruption (CPI) is available from 1980 only for 54 countries.
- ²There were many cases of political corruption even before the war. We recall the Banca Romana case under the Giolitti Government. In the period 1880–1976 in the *Corriere della Sera* newspaper only very important national cases of corruption are reported (Cazzola, 1988). However, it was only after 1976 that political corruption became a serious phenomenon, and it was possible to read newspaper reports about corruption in many parts of Italy.
- ³In a paper by Del Monte and Papagni (2006) a regression of the effect of an index of judicial efficiency on corruption crimes was carried out and a positive but not significant parameter was found.
- ⁴In many elections the politicians suspected of bribery, as soon as they became eligible again, were reelected.
- ⁵This view was shared by Amato (1982) and Cassese (1986).
- ⁶Immediately after *Mani Pulite* there was a reduction in the cost of public works for government.

⁷However, one of the effects of such a reform is to increase political stability that is considered another variable that affects corruption. The argument in favour of a positive relationship between corruption and political stability is as follows: when a new party comes to power it will have more incentive to reform the corrupt practices of its predecessor (Geddes, 1997, p.12). Political stability provides the time for reputations to build and relationships to form across the public-private border in which both sides can have confidence. Thus, while increasing the potential loss if bureaucrats are fired, political stability might actually increase the expected return to corruption.

⁸There are four indicators of civic sociability considered by Putnam:

- the vibrancy of association life
- the incidence of newspaper readership
- the electoral turn-out in the referenda
- the incidence of preference voting.

The four indicators are highly correlated in the sense that regions with a high turnout for referenda and low use of the personal preference ballot are virtually the same regions with a high diffusion of civic association and a high incidence of newspaper readership.

⁹The southern territories once ruled by Norman kings constituted the seven least civic regions in the 1970s. The Papal States (minus the communal republics that lay in the northern section of the Pope's domain) correspond to the next three or four regions up the civic ladder in 1970. At the end of the scale the heartland of republicanism in 1300 corresponds to the more civic regions of today, followed closely by the areas still further north in which republican tradition, though real, had proved somewhat weaker.

¹⁰The recent SME case where businessmen and politicians corrupted judges to obtain positive verdicts is a good example of such opportunities.

¹¹While evaluating the non-linear effects of the share of agriculture in GDP and of the index of political concentration, it must be considered that both variables assume values in the range (0, 1).

¹²See Putnam (1993) and Del Monte and Papagni for an explanation of this relationship.

¹³"Sviluppo, criminalità e corruzione", *Quale Impresa*, No. 7, 1994.

¹⁴Preliminary results along this line are in Cantabene (2005), who uses a cross sectional regression for Italian provinces over the periods before (1985–1994) and after (1995–1999) Clean Hands.

¹⁵Assume that public expenditure is the product of T transactions of equal cost c . Some of these transactions are performed by corrupted employees that ask a bribe b for transaction. The price of these transactions is $c(1 + b)$. Other transactions are not performed by corrupted employees and their cost is c . Given the same number of transactions the effect of Clean Hands could be to reduce b and the number of corrupted transactions and corrupted employees. Therefore, public expenditure, given T , has a value that depends from b and the number of corrupted employees. But the index of corruption (the dependent variable) is a proxy for the number of corrupted transactions. Therefore, public expenditure is not independent from the dependent variable. This problem could always arise when one uses public expenditure as explanatory variable but the bias is greater if the relationship between the number of total transactions and the number of corrupted transactions is affected by structural changes between two periods, i.e., the effect of an anticorruption campaign.

¹⁶Relative integrity in politics and administration was achieved in many industrialised countries (Great Britain, Holland and Scandinavian) as the result of a highly complex interaction between different cultural, political and economic forces.

The transitions from the mercantilism to a free market economy in Northern European State allowed the creation of a political and administrative system efficient and not corrupt. When the state again intervened in the economy at a large scale, institutional changes in the governing rules by politician and bureaucrats and cultural change in people behaviour were enough strong that corruption continued to decrease.

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