



Corruption

Markets, Competition, and Rules

Syracuse University, College of Law
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Dr. Leonardo Borlini
Department of Law/Baffi Centre
on International Markets, Money, and Regulation
University Bocconi, Milan, Italy



Università Commerciale
Luigi Bocconi

leonardo.borlini@unibocconi.it

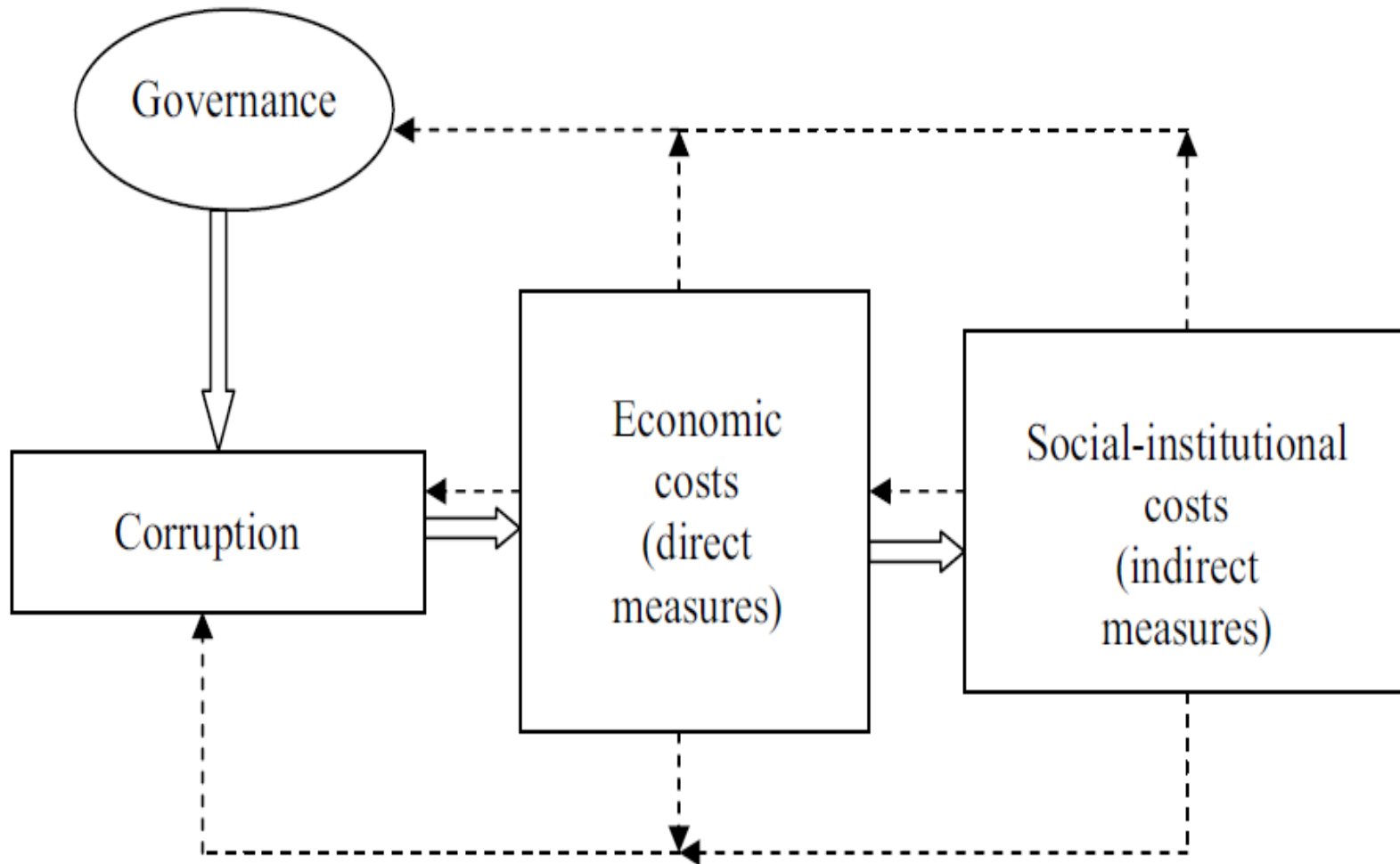
Our Agenda



1. The relevant notion of functioning and competitive markets.
2. How corruption distorts the functioning of competitive markets and allocation of resources, with a particular stress on:
 - A. The impact of corruption on new entrants
 - B. The effects of corrupt environments on firms
 - C. The artificial obstacles to business that corruption may create and the further costs and dangers it poses
 - D. Corruption and competitiveness
 - E. Effects of corruption on different markets and SMEs
3. Corruption and allocation of talents
4. Corruption markets and economic development
5. Preventive Measures



Causal Interactions Between Economic and Social Effects and Governance



Caveat: Troubles in Measuring Corruption and Isolating Its Effects



- CPI and similar indexes measure ‘perceptions’.
- However, perceptions are at the basis of expectations and investment decisions.
- Use of correlations: given the difficulty in measuring corruption and, above all, the complexity of the causal interactions between corruption, its economic and social effects and other governance variables, it is extremely difficult to isolate the ‘corruption factor’.



Caveat 2: Defining Corruption



- A. Economic historical definition:** ‘Misuse of public powers for private gains’
- B. Legal standard** is, at the same time, wider (comprise also private corruption) and narrower in that it encompass only criminal offenses as established by the main international treaties on the matter and national jurisdictions
- C. In our legal assessment** of the main international treaties against corruption we use the following ‘narrow’ notion of corruption (referred to as corruption *stricto sensu*), which normally denotes two specific criminal offences:
- i. **Active corruption**, that is to say the intentional offer, promise or giving of any undue monetary or other advantage, whether directly or through intermediaries, by an (*extraneus*) person to a (public/private) official, for that official or for a third party, in order that the official act or refrain from acting in relation to the performance of official duties, in order to obtain a private gain; and, symmetrically,
 - ii. **Passive corruption**, that is to say the act of an (*intraneus*, public/private) official who intentionally acts or refrains from acting according to the performance of the official duties in order to obtain any undue pecuniary or other advantage.
- D. Note, however, that a broader legal notion of corruption exists** and include also other offenses as established in different jurisdictions, or, even in the same anti-corruption conventions.





The Relevant Notion of Competitive Markets

Markets are a set of most sophisticated relations between producers and consumers, and between production factors, technical knowledge, and organization in time and space.

Furthermore, they are also a set of relations between economic actors and social, political, legal, and civil institutions. A set of rules common to all economic actors, and their enforcement, is an essential precondition for the functioning of competitive markets, with their outcomes of efficient distribution and utilization of resources and optimal individual choices.

Finally, markets are (implicitly but inevitably) defined as part of an organized social context, where there are established commonly shared behavioral rules, with enforcement mechanisms that punish excessive deviations.



2. Corruption and Distortion of Markets: Key Takeaways



- The mechanisms through which corruption distorts the functioning of competitive markets and allocation of resources are manifold. I account for some of the more remarkable.
- Creation of asymmetric context where certain competitors are excluded and like stakeholders do not find any means of licit and substantial representation/protection
- As a mediate bearing, consumers might end up with suffering limitations to their freedom of choice
- It represents a more powerful means to exclude rivals than the most brazen forms of cartel and attempts at monopolization
- It also affects the fundamental role of government in the areas of protection of property rights and enforcement of contracts.
- Corruption can lower the quality of public projects and services when externalised
- It generates a concealed and yet extremely inefficient compartmentalization of the relevant market into a highly profitable corrupt and restricted sub-market and an open, although less profitable one
- Most importantly for an 'open economy' is its impact on new entrants ...



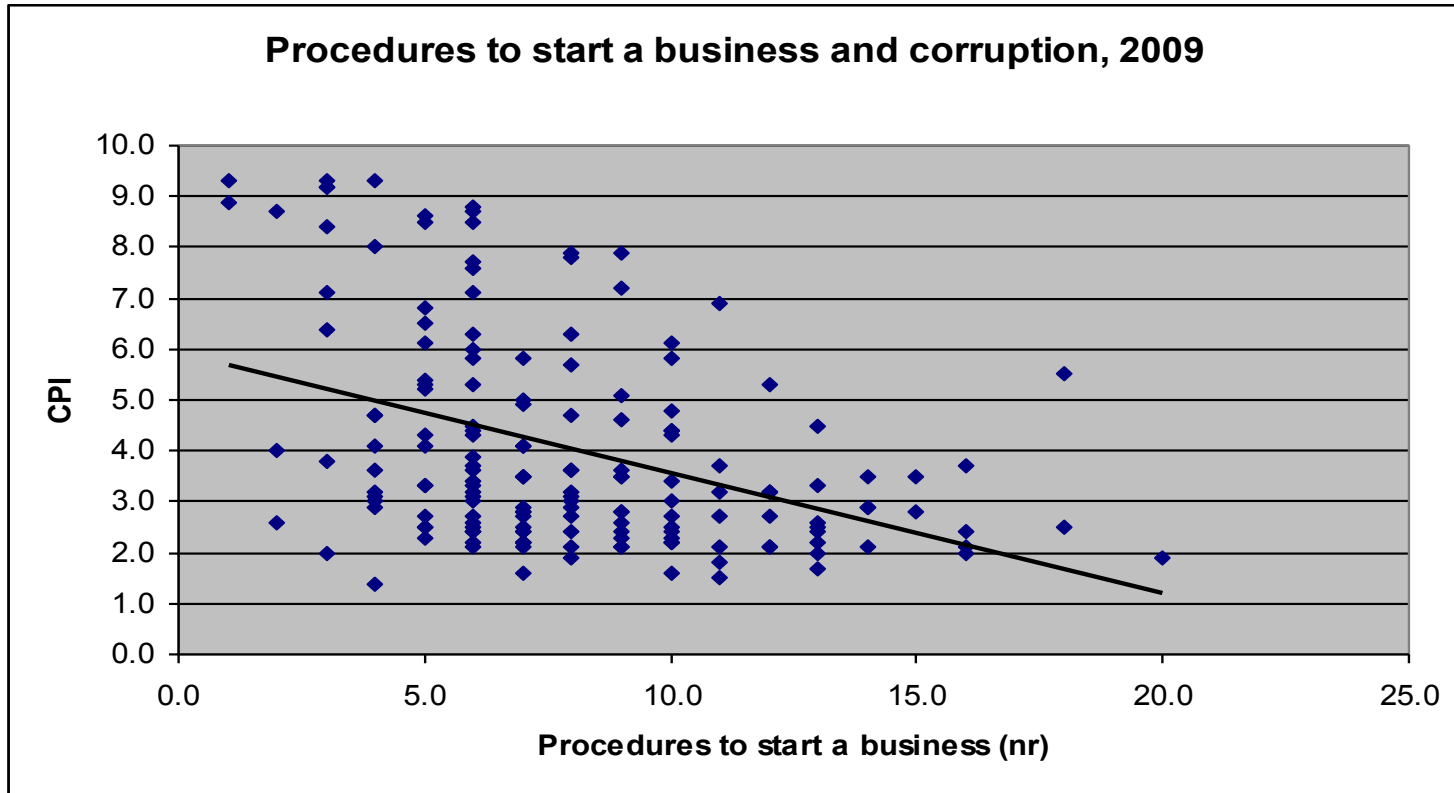


2.A. Impact on New Entrants (Key Takeaways)

- Regulations in favour of individual entities are an impediment for players other than those favoured.
- Furthermore, incumbents should generally have less of an incentive to stimulate public action against corruption, since it allows them a certain degree of protection from full market competition.
- In the end, corruption and economic and political inequality work as mutually reinforcing incentives which limit economic development
- An empirical study conducted jointly by EBRD and the WB confirms that corruption represents a major obstacle curtailing access for new market entrants: their Business Environment and Enterprise Performance Survey **analyses results for a sample of 3,000 firms from transition economies**. It is interesting to note that firms **identify anti-competition practices and corruption as major obstacles to starting up a business**.



2.A. Impact on New Entrants



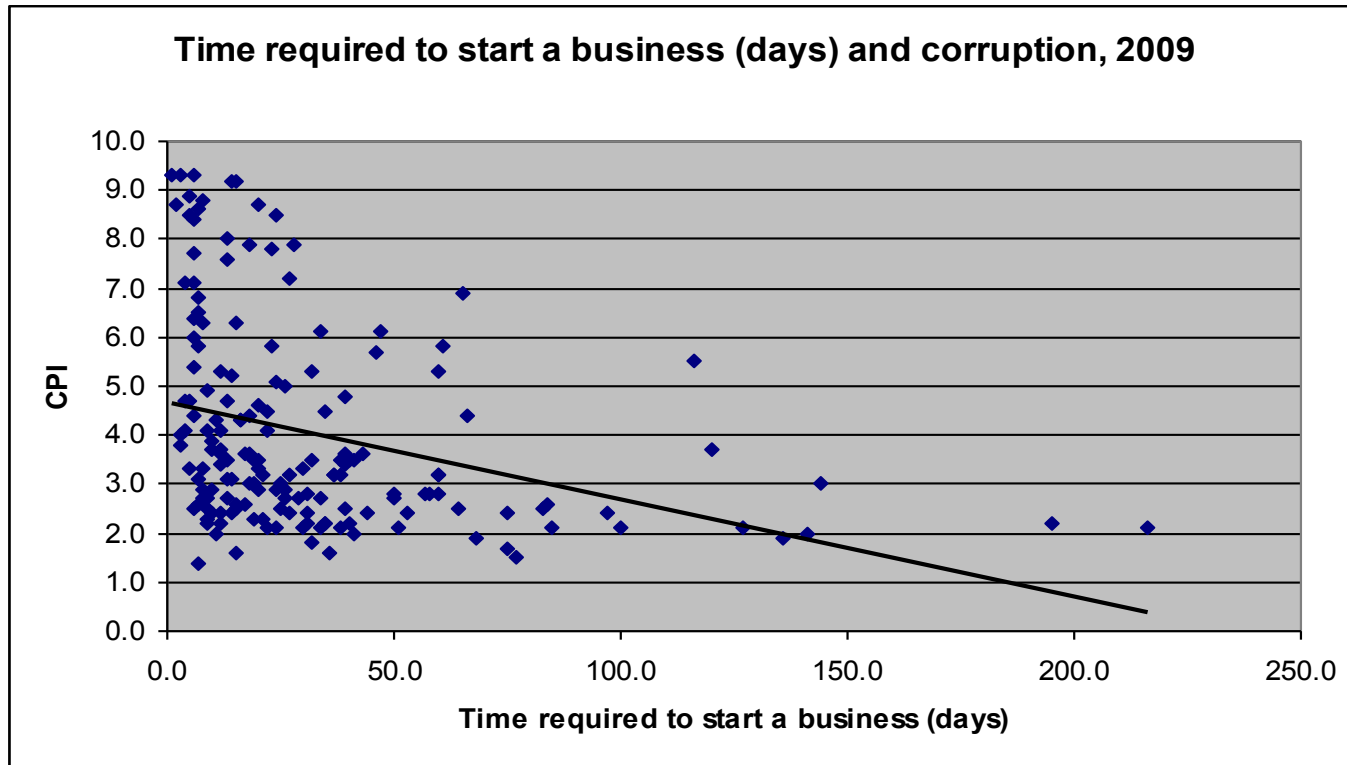
Note: CPI = 10 denotes the absence of corruption while CPI = 0 denotes the highest level of corruption.

Source: Authors' calculations based on WB Business Environment and Enterprise Performance Survey and TI data.

Figure 2.1 Corruption and procedures to start a new business, 2009



2.A. Impact on New Entrants 2



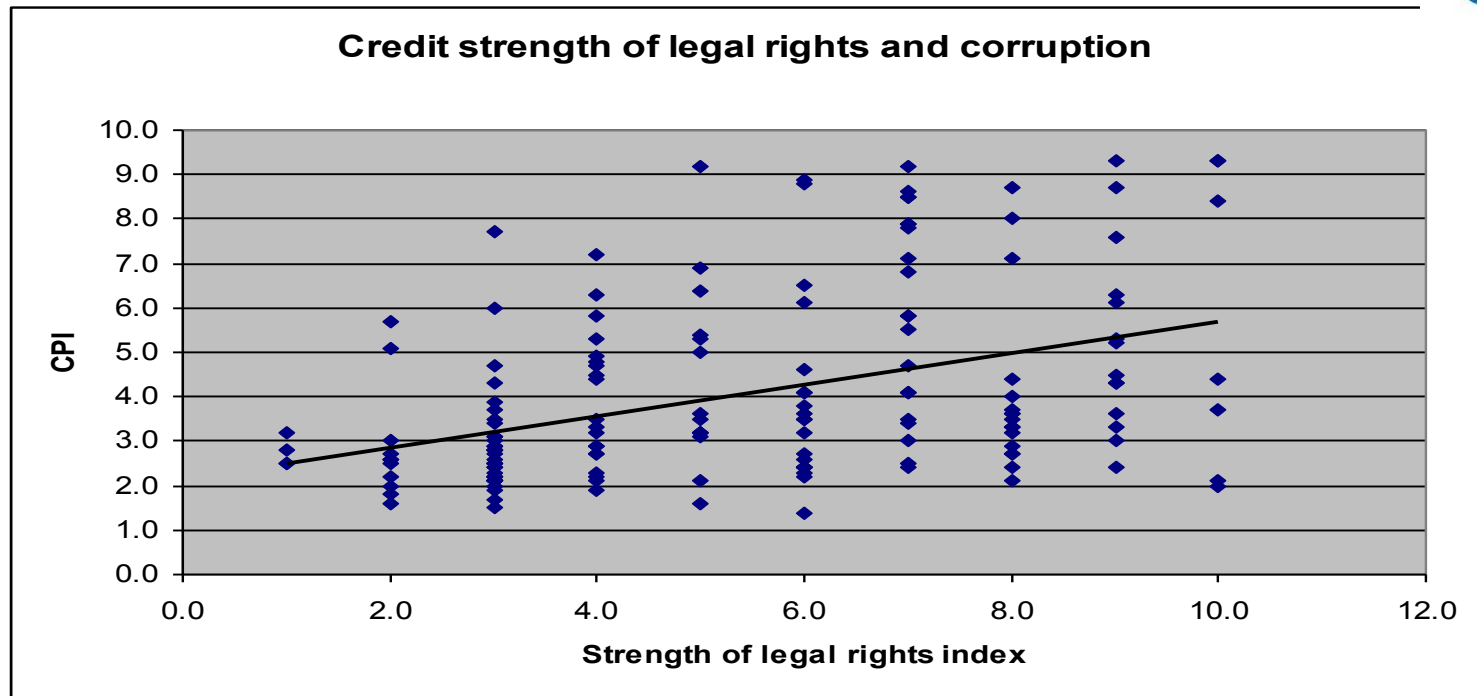
Note: CPI = 10 denotes the absence of corruption while CPI = 0 denotes the highest level of corruption.

Source: Authors' calculations based on WB and TI data.

Figure 2.2 Corruption and days required to start a new business, 2009



2.A. Impact on New Entrants 3



Note: CPI = 10 denotes the absence of corruption while CPI = 0 denotes the highest level of corruption.

Source: Authors' calculations based on WB and TI data.

Figure 2.3 Credit strength of legal rights and corruption, 2009



2.A. Impact on New Entrants 4



Figure 2.1 shows that lower corruption is generally associated with the number of government regulations; the evidence indicates that governance and corruption are negatively correlated

- Over-lengthy bureaucratic procedures are generally associated with high levels of corruption. Figure 2.2. With few exceptions (specifically, Spain's average corruption is associated with a number of days that are significantly higher than the industrialized country average), this relationship is strong all through our data set.
- The credit dimension of legal rights, as part of the general quality of governance, is also a primary determinant of market entry and investment decisions: extra costs are a significant obstacle to business creation. In Figure 2.3 we show that the impact of the cost of capital on the economy and domestic corruption are correlated. We may suppose that, if the cost of capital is too high, alternative (possibly uncertain and unsafe) sources of capital may be available in the economy.



2.C. Effects of Corruption Environments on Existing Firms (Key Takeaways)



- Creation of new ‘artificial’ barriers: ‘in many countries (e.g., Ukraine, Russia, and Indonesia) enterprises – especially small ones – are forced by public officials to pay to make things happen or even to keep bad things from happening. Often these payments must be made if the enterprise is to remain in business’ (Tanzi 2002)
- To the obvious cost of paying bribes, one has to add the – more damaging in terms of overall efficiency – unnecessary delays or red-tape requirements devised by public officials in order to extract bribes.
- What is more, corruption is a cost for society as a whole and acts as a structural constraint.
- Like security and crime prevention, corruption represents a fixed cost and is a major charge to corporate investment decisions.



2.C. Effects of Corruption Environments on Existing Firms (Key Takeaways)



- OECD's data related to different institutional contexts shows that State capture is perceived as the most harmful threat according to firms in Southern Asia, Eastern Europe, Asian developing countries and the former Soviet Union. Also, it represents a major charge for firms in the G7 and OECD countries, South America and the NICs.
- Only in North European countries – for which CPI scores are very good – does the impact of corruption seem negligible.
- While it denotes the importance of State capture costs, we need to highlight also the importance of the costs of organized crime, including all organized corruption (i.e., administrative corruption) other than State capture. In Latin America, Eastern Europe, the former Soviet Union, Asian emerging economies, Northern Europe, and OECD countries, crime ranks second amongst all perceived costs for firms; moreover, the cost of organized crime for firms is one of the most significant for all countries, excluding Northern Europe.



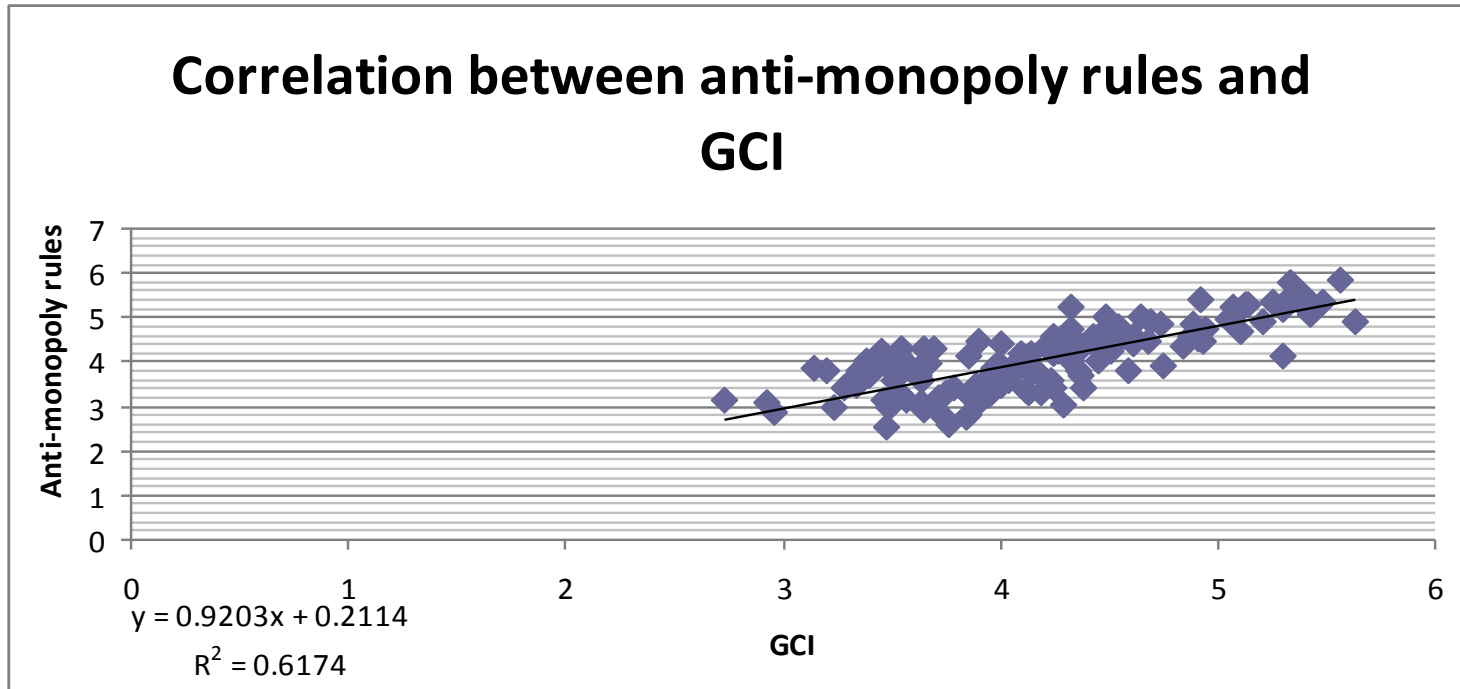
2.D. Corruption and Regulated Competition (Key Takeaways)



- Inefficiently regulated markets are poorly competitive. Production processes are a priori distorted by inefficient resource allocation and a selection of market players that does not reflect quality parameters.
- If, on the one hand, inefficient firms or firms that are unable to meet consumer tastes can survive, provided they are favoured by distortions, on the other hand, firms not favoured by regulations may be driven out of business irrespective of their quality. Such a market does not guarantee efficiency, hence it is not competitive.
- This argument leads one to think that efficient regulation of competition and market competitiveness are positively associated.
- Evidence underline the fact that the higher the level of a country's competitiveness, the lower the corruption it experiences. (Figure 2.5 and 2.6)
- Policy implications



2.D. Corruption and Regulated Competition 1

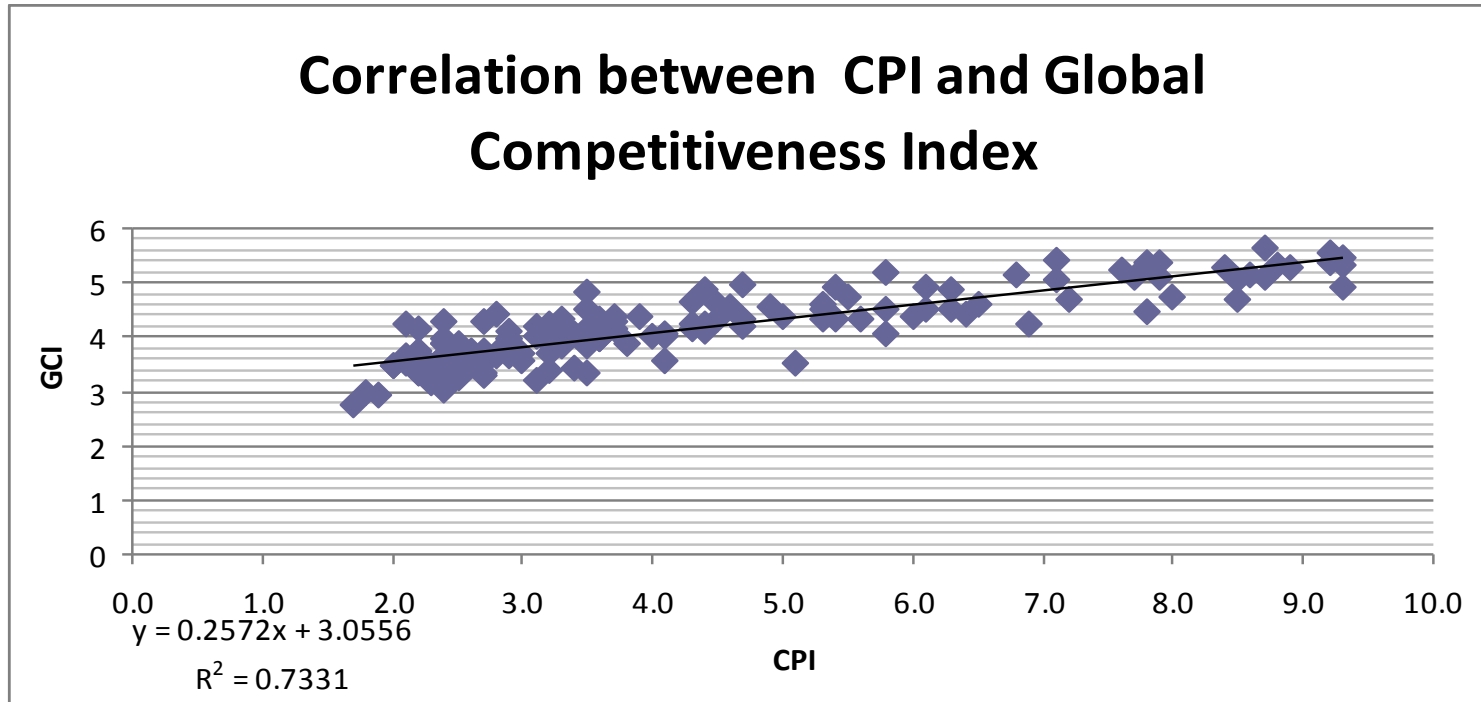


Source: Authors' calculations based on WEF and Global Competitiveness Index (GCI) data.

Figure 2.5 Anti-monopoly rules and firms' competitiveness, 2009



2.D. Corruption and Regulated Competition 2



Note: CPI = 10 denotes the absence of corruption while CPI = 0 denotes the highest level of corruption.

Source: Authors' calculations based on GCI and TI data.

Figure 2.6 Competitiveness and corruption, 2009



2.E. Effects of Corruption on Different Markets (Key Takeaways)



- Environments in which there is concentrated economic or political power largely favour the development of corruption. An incentive to corruption is that the costs of prosecution are more than compensated by illegal rents.
- High levels of corruption are associated with highly capitalized sectors in which significant State constraints exist on entrepreneurial activities. For instance, in real estate development corruption exists that is associated with large contracts. In energy and telecommunications, State regulations may lead to the establishment of monopolies or oligopolies. We may also mention all industries supplying governmental products and services only, under no competition constraints: included are the defense and pharmaceutical sectors. (Figure 2.7)
- Our study shows that sectors in which corruption is higher are also those in which higher bribes are extorted. Construction is perceived as the most corrupt sector and the one where the highest amount is paid in bribes. This is also applicable to oil and gas, defense and energy.



2.E. Effects of Corruption on SMEs (Key Takeaways)



- SMEs: their peculiarity is not so much that they contribute to widespread corruption, as that they may not be able to bear its additional costs.
- The empirical study of OECD countries during the 1990s by Tanzi and Davoodi (2002a and 2002b) spells out a number of interesting aspects which lie behind the changing perception of the role of SMEs in the economy (vast number of labour force employed; relatively less capital intensive but more financially constrained than big firms; in product-vs-process innovation their survival depends on competent entrepreneurship, talented management, and the environment they face).
- The vital role of SMEs is not limited to OECD countries, but extends to transition economies and developing countries as well. Tanzi and Davoodi (2002a and 2002b) highlight that the effect of corruption is differentiated among enterprises and is particularly intense for SMEs.
- For this reason corruption acts as a brake on the engines that promote growth in most countries: obstacles to the creation and growth of small new enterprises cause economies to languish, especially in developing countries and increasingly in transition economies.
- Difficult for SMEs avoid paying bribe (examples, Uganda), and more exposed to the adverse effects of corrupted environment (e.g. Argentina, adverse impact of corruption on returns to capital)
- Policy implications



3. Corruption and Allocation of Talents (Key Takeaways)



- The existence of markets pervaded by corruption is at the same time cause and effect of the possibility that most talented individuals will prefer rent-seeking versus productive activities.
- Empirical research analyses the implications of students from 53 countries who choose to enrol in productive activities, such as engineering, versus rent-seeking-associated activities such as law. The results of regressions show that domestic corruption is adversely correlated with the choice of productive activities; there is also a major adverse impact on growth due to the allocation of talent in favor of non-productive activities.
- Individuals from affluent social groups are more inclined to choose non-productive activities in corrupt environments; Dabla-Norris and Wade (2002) show that, if constraints exist on financial markets, individuals with income in excess of a certain critical threshold tend to favor rent-seeking. This reflects an attempt both to preserve initial wealth and, more importantly, to prevent others from appropriating this wealth.
- Endemic corruption acts as a tremendously blocking psychological factor for those who are willing to invest in their education and talent; our view is that, when strongly rooted in a given society, it has the potential to increase fear, frustration, and anger to such an extent that it can unconsciously paralyze any plan over the mid to long run of young generations and impede them from entering into the adult phase of their own lives.





4. Corruption and Business Environments (Key Takeaways)

- GDP and Potential Growth: use of an index of business environment quality.
- The business environment index reflects a country's existing opportunities to start new businesses; it includes such sub-indexes as market potential, fiscal policies, labor conditions, infrastructure, know-how, and, finally, a sub-index for the quality of a country's political environment.
- While it may provide no representation of a society's overall development potential, it offers a **perspective on the existing market environment**.
- Empirical evidence with respect to the relationship between a country's corruption and governance quality, and between corruption and competitiveness, respectively, indicates that corruption also has an adverse impact on the business environment.
- Arnone and Iliopoulos (2005) and Arnone and Borlini (2014) present empirical evidence on the correlation between the business environment index and CPI: data show that a country's business environment quality and domestic corruption are clearly related; markets favouring the development of entrepreneurial activities are clearly the least corrupt.



Low-Cost Anticorruption Strategies: The Call for Preventive Measures and Careful Law-Making



- Public sector: e.g. anti-corruption agencies
- Private Sector: protection of whistle-blowers; avoiding perverted application of the exit/voice paradigm



Corruption: Markets, Competition, and Rules

Presentation Notes (Dr. Leonardo Borlini)

INTRODUCTION

The subject of my intervention represents a corollary coming out of the book “*Corruption economic analysis and international law*”, published in May.

Asserting that corruption is one of the most serious challenges to modern economic systems and societies sounds commonplace at best: it lacks power to evoke interest because of overuse. The very first part of our work evidence that corruption, accurately labelled the ‘enemy within’, causes serious systemic economic, institutional and social costs, and, when it hits financial markets, affects asset prices and financial supervision. It is of course beyond the limits of today seminar to account for the outcomes of the whole study for example, also by referring to the impact of corruption on macro-economic performance and financial markets. Therefore, I decided to focus on the relations between corruption, markets and competition: the stress is on corruption as one of the most serious distortions of the competitive well-functioning of modern regulated markets, which typically creates and crystallizes asymmetric business environments, where outsiders are either excluded *ex ante* or forced to exit, as well as closed social systems, where the views of those without sufficient economic or political influence or enough visibility are simply without representation. The other side of our thesis is that well regulated competitive markets are generally correlated with less corruption.

The main points can be grouped as follows:

1. First, from a methodological perspective I attempt to clarify what we (should) mean for a functioning and competitive market and its abysmal distance from a market dominated by corruption. This operation requires also a concise assessment of the relation between market and rules.
2. Secondly, I will provide you an overview of the manifold mechanisms through which corruption distorts the functioning of competitive markets and allocation of resources, with a particular stress on:
 - A) the impact of corruption on new entrants
 - B) the effects of corrupt environments on firms
 - C) the artificial obstacles to business that corruption may create and the further costs and dangers it poses
 - D) I will attempt to show that competitive markets where anti-monopoly rules are clear and properly enforced corruption tends to be relatively small
3. Assuming that corruption has no uniform impact on all markets and all business in one market, I will provide some data concerning its variable bearing in different economic sectors, by highlighting that environments where there is concentrated economic and/or political power largely favour the development of corruption. In the same spirit I will show that impact of corruption is particularly intense for SMEs.

4. Fourthly, I will spend some considerations on an issue Marco Arnone was deeply concerned about and, which, in Italy as well as in other EU countries is dramatically emerging: the effects of corrupted market on the allocation of talents.
5. Fifthly, though the impact of corruption on development is dealt with in the macro-economic sections of our book, some considerations on the business environment quality as a main driver for sustainable economic growth are worth reporting in the context of the present seminar.
6. Finally, once showed that corruption is a significant negative externality, I'd like to account for what have been accurately referred to as 'low-cost anti-corruption strategy', i.e. prevention.

Caveat -1¹ Measuring corruption / Isolating the 'corruption factor'

¹ As to the use of perception index like CPI, Kaufmann, Kraay and Mastruzzi (2006:1) argue that 'Corruption can, and is being, measured ... by gathering the informed views of relevant stakeholders. These include surveys of firms, public officials, and individuals, as well as views of outside observers in NGOs, multilateral donors, and the private sector. These data sources can be used individually, or in aggregate measures which combine information from many such sources. Literally dozens of such sources are available, many of them covering very large sets of countries, often over time for several years. These are the only available data sources that currently permit large-scale cross-country comparisons and monitoring of corruption over time.' What is more 'since corruption usually leaves no paper trail, perceptions of corruption based on individuals' actual experiences are sometimes the best, and the only, information we have. Perceptions also matter directly: if for example citizens believe the courts and police to be corrupt, they will not want to use their services regardless of what the objective reality is. While social norms might affect what people view as corruption, in practice such cultural bias in perceptions does not seem to be very important. It is telling for example that the correlation of perceptions of corruption from cross-country surveys of domestic firms tend to be very highly correlated with perceptions of corruption from commercial risk rating agencies or multilateral development banks.'

The economic part of our work builds on and expands the existing literature through the analysis and elaboration of an extensive data set of micro, macro, and institutional variables. It was mainly in the early 1990s that the economic community witnessed the emergence of cross-country, perception-based, quantitative assessment of country governance and corruption. The best-known and most referenced corruption index to date, TI's corruption perceptions index (CPI), started its annual survey in 1995. The annual CPI ranked more than 150 countries (in 2009 it included 180 countries) in terms of perceived levels of corruption, as determined by expert assessments and opinion surveys. The CPI is a questionnaire-based survey, which assesses perceived corruption on a scale of 0 to 10. Ten refers to a (perceived) corruption-free country; zero refers to countries where corruption is perceived as extremely pervasive. Shortly afterwards, the World Bank (WB) succeeded in developing a more inclusive data set covering broader governance concerns providing a better picture of the overall state of governance in a country, which is split up into six dimensions: control of corruption, rule of law (ROL), government effectiveness, regulatory quality, voice and accountability, and political stability and the absence of violence. Since corruption is often concealed (corruption is illegal, and it must therefore be kept secret) and its appreciation is inherently subjective, the measure of corruption is often a problem. Most assessments use perception-based measures of corruption. There exist many polls that measure the level of corruption. These surveys are based on different criteria. Some consist of assessments by country risk analysts based in the home country or abroad. Others are surveys of local or expatriate businessmen, while there are also methodologies based on local residents. The three most popular surveys are from the Economist Intelligence Unit, the International Country Risk Guide, and TI's CPI. Although different surveys are collected by different methods, ratings from different polls show a high degree of correspondence with each other. Treisman (2000) remarks that indices of corruption that come from surveys of businessmen conducting business in a country are highly correlated with the indices of corruption that come from surveys of the citizens in the same countries. **To sum up, although the corruption indices at issue are subjective measures of individuals' perception, they appear to capture an important conceptual framework, which manifests itself in a variety of other forms in society. From the analysis of the related literature, it unambiguously emerges that the social and economic effects of corruption are significant, pervasive and generally negative. The CPI is a sort of "poll of polls", condensing composite information from up to 12 individual surveys and ratings. The respondents are business people, risk analysts, and the general public. A country must be covered by at least three surveys to be included in the CPI. Thus, we chose this index mainly because of its comprehensive coverage, and because it incorporates the outcomes of the other major indices.**

Caveat -2² Defining Corruption

1. MARKETS AND RULES

In the economic analysis of the corruption we are predominantly concerned with corruption in the form of interaction between public and private entities, to be read in its general meaning of misuse of public power for private gains. First of all, however, we need to look at the overall, fundamental relationship between markets and rules. It is key to go deeper into market physiology so that we may understand its pathologies: that is to understand how far a market where dirty players are significant is far from been competitive and functioning.

Our take, is that far from being jungles where the law of the strongest rules, markets are a set of most sophisticated relations between producers and consumers, and between production factors, technical knowledge, and organization in time and space. Furthermore, they are also a set of relations between economic actors and social, political, legal, and civil institutions. A set of rules common to all economic actors, and their enforcement, is an essential precondition for the functioning of competitive markets, with their outcomes of efficient distribution and utilization of resources and optimal individual choices. Moreover, markets are (implicitly but inevitably) defined as part of an organized social context, where there are established commonly shared behavioral rules, with enforcement mechanisms that punish excessive deviations.

There is an abysmal distance between this idea of the market and a primitive vision – widespread and yet totally erroneous – of a market in which competition and the dynamics of birth and mortality of enterprises are mistaken for “the law of the strongest”, with markets open to abuse by whoever may be wielding power. Nothing is further from the concept of market as defined in microeconomic theory: in a competitive market those who affirm themselves are as efficient, innovative and capable of organizing resources at least as well as others, while abiding with existing laws and regulations.

On the contrary, markets characterized by widespread corruption are, instead, normally dominated by operators with the least entrepreneurial capabilities, who need to break the rules, illegally impose their will, use (or be used by) political power to avoid competition. These operators may be good at rent-seeking, while they seek resources and parasitic advantages, but are not entrepreneurs as such.

² Economic historical definition: ‘Misuse of public powers for private gains’ Legal standard is, at the same time, wider (comprise also private corruption) and narrower in that it encompass only criminal offenses as established by the main international treaties on the matter and national jurisdictions. In our legal assessment of the main international treaties against corruption we use the following ‘ narrow’ notion of corruption (referred to as corruption *stricto sensu*), which normally denotes two specific criminal offences: - **active corruption**, that is to say the intentional offer, promise or giving of any undue monetary or other advantage, whether directly or through intermediaries, by an (*extraneus*) person to a public official, for that official or for a third party, in order that the official act or refrain from acting in relation to the performance of official duties, in order to obtain a private gain; and, symmetrically, **passive corruption**, that is to say the act of an (*intraneus*, public/private) official who intentionally acts or refrains from acting according to the performance of the official duties in order to obtain any undue pecuniary or other advantage. D) Note, however, that a broader legal notion of corruption exists and include also other offenses as established in different jurisdictions, or, even in the same anti-corruption conventions. For example, the UNCAC does not define corruption as such. It rather defines specific acts of corruptions that should be considered in every jurisdiction covered by the Convention. These include bribery and embezzlement, but also illicit enrichment, ML, concealment, and obstruction of justice. It is also worth noting that certain conduct which may be generally considered related to such wider notion of corruption are considered as criminally offences in certain jurisdictions (e.g. in Italy illegal financing of political party), while similar conduct in other jurisdictions may be perfectly legal (cfr, the notion of lobbying in the US).

Let us go back to the relationship between market and rules. We said that a set of commonly shared rules is required in a market, that is to say, no competitive market exists without its own proper legal order. Not all rules are at the same level. The example tells us that there exist rules, like ownership rights and the procedures established for their enforcement which are necessary preconditions for the very existence of a market and make it a desirable means to allocate resources, satisfy individual choices, and disseminate information. In other words, without such normative framework a market would not even exist. Such fundamental rules are not up for bargaining – less so for the bargaining of few individuals rather than all, as is typical with cases of corruption. To give an example, in the aftermath of the fall of the Soviet Union and the birth of new countries, ownership rights, while enjoying legal recognition, lacked *de facto* enforcement. Appropriation of resources became a possibility as opposed to voluntary market exchange. In such conditions no price is determined that is significant for transactions, nor is there any free market at all.

Similarly, in areas where there is strong criminality, actors in the market may come under pressure or be forced to exchange their goods or services by whoever may use threats to secure profitable businesses. Clearly, also in these conditions there are no voluntary transactions nor do prices have any economic significance.

Moreover, dirty players jeopardize the survival of competitors who play by the rules: a paradigmatic and, unfortunately, rather frequent case in (also developed) economies which happen to be infiltrated by criminal organizations is that of hybrid conglomerate actors which operate in both legal and illegal markets. One who bids for a contract and has dirty money available may win that contract because dirty money costs less than clean money, and allows total average lower costs: in calculating the cost of that money one has also to deduct the extra-profit represented by laundering it.³

The arguments above show how the concept of rule of law (ROL) logically precedes that of market. As mentioned, markets are (implicitly but inevitably) defined as part of an organized social context, where there are established commonly shared behavioral rules, with enforcement mechanisms that punish excessive deviations.⁴

Also, whenever players violate the rules, the logical desirability of the market as we discussed earlier – that the market is an efficient mechanism for allocating resources, an instrument to realize optimal individual choices, and a mechanism for defining prices as a synthesis of the information that is sufficient to make economic decisions – loses its foundations. In this scenario, equality no longer exists between all players. There is no assurance that whoever emerges is the best from an economic point of view: the market no longer guarantees efficiency or optimality or informative prices.

Finally, in a competitive market the principle of freedom has ultimate value, embodied in the concept of consumer sovereignty: individual choices based on individual preferences and budget constraints, and freedom from third-party directions. In a market in which certain players use illegal means to secure resources and opportunities, the market might fail to satisfy the demand of clean players, who will suffer a limitation on their freedom.

³ Therefore, an organization, which runs both licit and illicit activities, may be looked at as a sort of a hybrid conglomerate having a clear and substantial interest in cross-subsidizing its licit activities with the profits of its illegal business. Phrased differently, such a peculiar conglomerate has an extra-cost to take into consideration regarding its illicit branch (the cost of laundering its illicit profits) and, simultaneously, an extra-profit achievable by carrying out its licit business (the amount of money it eventually has at its disposal after laundering the illicit profit through the licit branch of its conglomerate business). By focusing on the licit part of its business, one may note that such economic actors have a wider spectrum of financial resources at their disposal than their “clean competitors”: clean players do not have illicit funds being invested and laundered. Hence clean players are impaired or excluded. When this happens on a regular basis, clean players may see their position weaken until they are driven out of business. Dirty players come to dominate the market. This market is not a competitive one.

⁴ In a mistaken market-biased vision of society in which the market devours a social organization and its rules, while it violates and bends them to the (mistaken) idea that everything is exchangeable and has a price, the market destroys itself.

2. CORRUPTION AND DISTORTIONS OF MARKETS

The mechanisms through which corruption distorts the functioning of competitive markets and allocation of resources are manifold. I start by accounting for some of the most remarkable in general terms and, then, I respectively analyse the impact of corruption on new entrants and existing firms.

Given the complexity of the phenomenon, **no single direct cause exists that may determine widespread corruption**; however, **certain public sector activities may provide a suitable background for the development of corruption**. Included are **licensing regulations, taxes, public spending, party finance, and all activities that are inherently discretionary**, or characterized by a concentration of political and economic power.⁵

Market functioning may be subject to distortions that limit free competition: corruption **challenges market competitiveness in terms of productive efficiency, allocative efficiency, and dynamic efficiency**.⁶

By its very nature, **corruption generates an asymmetric context** where competitors are excluded and – like stakeholders, whose interests are the opposite of those subjects involved in corrupt operations – do not find any means of licit and substantial representation.

Coming to the ultimate values at the root of competitive markets – which are realized when individual choices based on individual preferences and freedom from third-party direction – whenever certain players may resort to illegal means to secure resources and opportunities, the market is likely to fail to satisfy **consumers, who will suffer a limitation to their freedom and choices**.

If used to maintain a certain market or business, **corruption endows dirty players with a way of excluding rivals that is potentially far more effective than the most brazen forms of hard-core cartels and attempts at monopolization**: corruptors jeopardize the survival of competitors who abide by the rules, and, as a consequence, cause economic inefficiencies similar to those of serious antitrust violation.

Corruption also **affects** the fundamental role of government in the areas of **protection of property rights and enforcement of contracts**. This may not only severely distort the market mechanism, but also harm, more generally, the role of the fundamental social institutions upon which the correct functioning of the market mechanism is grounded. Nor is the damage limited to the private sector. Corruption also raises the cost of government projects through inefficient allocation processes, whereby government contracts and concessions may not be awarded to the most efficient bidders if those firms are unwilling to pay bribes.

Furthermore, corruption can **lower the quality of public projects and services**, since a contract is likely to be awarded so as to maximize the gain of the corrupt official instead of optimizing social benefits. The quality of service can suffer even more where contractors make payoffs to cut corners. Let us refer to the case of a corruptor who bids for a contract and has dirty money at his disposal.

The **case of the TSKJ Consortium** (Chapter 8 of the book) involving some of the major world oil companies, allegedly culpable of systemically paying bribes to Nigerian high officials in order to award engineering–procurement–construction (EPC) contracts in Bonny Island, is a typical case of a supranational cartel which, by means of transnational corruption, succeeds in winning the competition for highly profitable markets and excluding rivals which play by the rules.

Also, corruption can likely cause a concealed and yet extremely inefficient and **asymmetric compartmentalization of the relevant market**. Corruption splits up the market into two segments: a hidden and highly profitable corrupt market which is restricted to a variable bunch of insiders, on

⁵ Corruption may significantly influence both resource allocation and domestic product distribution: because of this, both private and public activities may experience major efficiency losses.

⁶ Efficiencies that, as widely recognized by the microeconomic mainstream – Krugman et al. (2007); Fumagalli and Motta (2008); Motta and Ruta (2008); Kip Viscusi and Zeckhauser (2005) – represent the main parameters adopted by analysts to measure the health of markets.

the one hand, and a licit open market, the operators of which ultimately bear the costs of the former, on the other.⁷

Corrupt firms, and firms belonging to well-organized criminal organizations (examples of which abound in China, Colombia, Japan, Italy, Mexico, Russia, and several African countries), **may also cross-subsidize their economic activity in another markets by resorting to extra-profit extracted in a certain market through corrupt conduct**, acting similarly to dominant firms abusing their strength in a certain market to secure the exclusion of competitors in a related market (a type of conduct familiar to antitrust scholars and practitioners). In such a case, the competitive process is distorted in two different markets.⁸

2.1. Impact on New Market Entrants

Coming to the impact of corruption on **potential competition** (a key determinant for **open markets**), **corruption may seriously hinder the entrance of new firms**.

The close association between low quality governance and corruption is of particular significance with regard to new market entrants. Market regulation has a strong impact on both the conduct of business and market entrance decisions: it has a role in selecting market players. Regulations and requirements that are necessary to conduct a business aim at guaranteeing that markets function with full respect for competition and the ROL.

Nevertheless, **regulations in favor of individual entities have the opposite effect and are an impediment for players other than those favored**. Furthermore, incumbents should generally have less of an incentive to stimulate public action against corruption, since it allows them a certain degree of protection from full market competition. In the end, corruption and economic and political inequality work as mutually reinforcing incentives which limit economic development. While players who are not favored may either exit their business or never start a new one, this has negative effects on society as a whole, slowing economic growth and development processes. Where would-be entrants are potential innovators, the consequences in terms of the impairment of dynamic efficiency and technological innovation are self-evident.

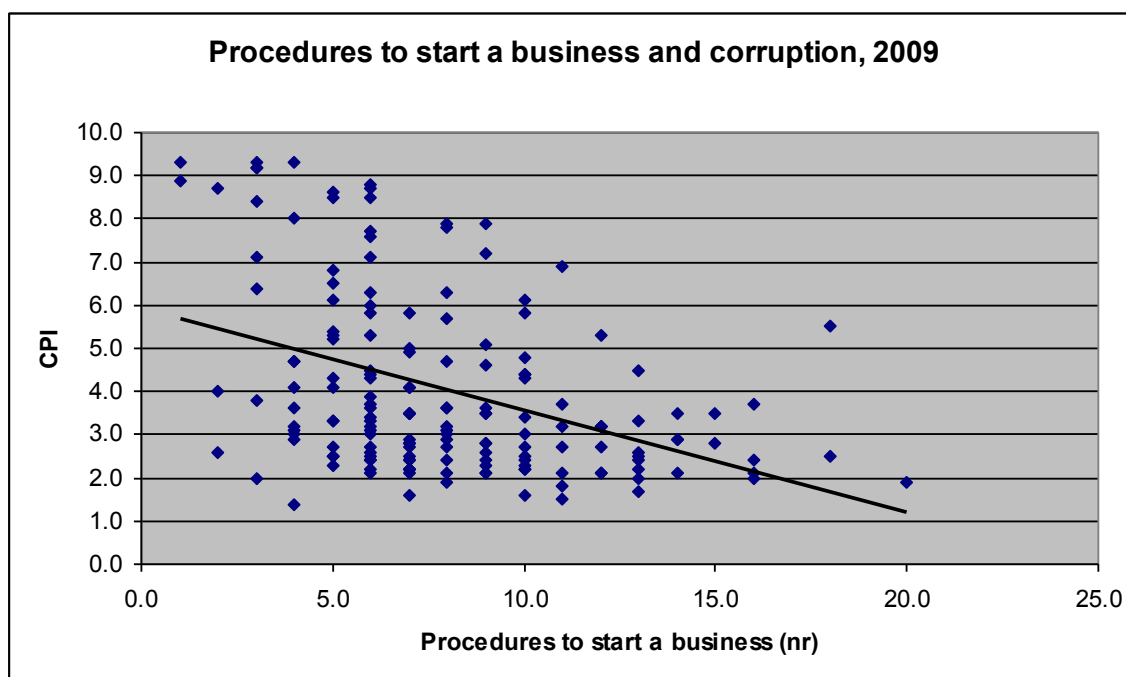
The results of an empirical study conducted jointly by the European Bank for Reconstruction and Development (EBRD) and the WB confirm that corruption represents a major obstacle curtailing access for new market entrants (Tanzi and Davoodi 2002a); their Business Environment and Enterprise Performance Survey analyzes results for a sample of 3,000 firms from transition economies. It is interesting to note that firms identify anti-competition practices and corruption as major obstacles to starting up a business. Our arguments below help illustrate these results.

New business creation and efficient market regulation are positively associated. It appears that if, on the one hand, market functioning is not ensured by the market per se and must be protected

⁷ In this respect, Della Porta and Vannucci (2007) posit that the corrupt market may have a high degree of institutionalization and be endowed with rules and reliable intermediaries easing and stabilizing the relationships between its insiders at the expense of the competitiveness of the licit market.

⁸ Further considerations should be devoted to the interaction between market regulation and open market. State regulators determine many characteristics of the economic environment in which players interact. With no regulatory system to protect the functioning of free competition, markets per se may ensure no efficient resource allocation. Market failures structurally limit the possibility that the conditions necessary for efficient competition may endogenously materialize. Also, a social ethic, chosen via a political process and requesting solidarity, inclusion, or other meta-economic characteristics, may require State intervention (e.g. in the healthcare sector; Cheng and Reinhardt 2012): competition per se may not ensure that the equity principle is upheld. State regulation is inherently discretionary. As such, it reflects the expertise and moral qualities of lawmakers. As discretion and strong economic interests favor power abuse, those laws that should guarantee good market functioning may be designed instead to favor specific groups or individuals. Distortions arising in this respect may affect both public and private sectors and influence resource allocation, production or (re)distribution. Also, requirements or regulations that are either excessively restrictive or complex may prevent access to new market entrants.

through the establishment of rules and regulations, on the other hand a non-distorted market promotes new market entrants. The support of regulations for efficient market functioning is a key element for firms and reflects a variety of distinct country-specific factors. Regulations favoring individual self-interested entities versus overall market functioning discourage new market entrants and create the opportunity for widespread corruption. Figure 2.1 illustrates the relation between State legislation in favor of new business creation and domestic corruption.



Note: CPI = 10 denotes the absence of corruption while CPI = 0 denotes the highest level of corruption.

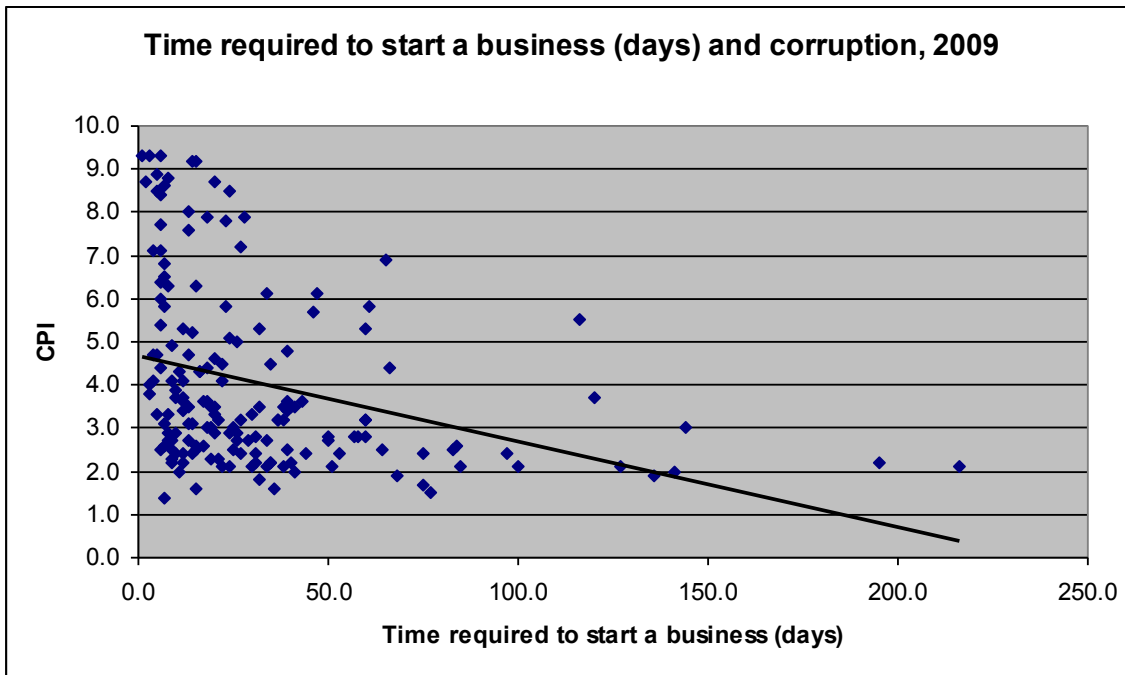
Source: Authors' calculations based on WB Business Environment and Enterprise Performance Survey and TI data.

Figure 2.1 *Corruption and procedures to start a new business, 2009*

Figure 2.1 shows that lower corruption is generally associated with the number of government regulations; the evidence indicates that governance and corruption are negatively correlated.

Efficient market regulation is reflected in the quantity and quality of regulations (Figures 2.2 and 2.3, respectively). Bureaucratic requirements represent costs in terms of time and money; if, on the one hand, effective costs may reflect fiscal policy choices, on the other hand no policy choice justifies over-lengthy procedures: these represent a major efficiency loss. We may also note that a complex, non-transparent bureaucracy favors abuse by State officials and helps spread corruption; also, bureaucracies pervaded by corruption have an incentive to create complicated, non-transparent procedures and increase illegal rents.

In Figure 2.2 we represent a country's domestic corruption in association with how long it takes to go through the bureaucracy needed to start a new business. We use the number of days between the beginning of bureaucratic procedures and the effective beginning of business operations as a proxy for difficult and lengthy bureaucracy. Again, we use CPI as a proxy for domestic corruption.



Note: CPI = 10 denotes the absence of corruption while CPI = 0 denotes the highest level of corruption.

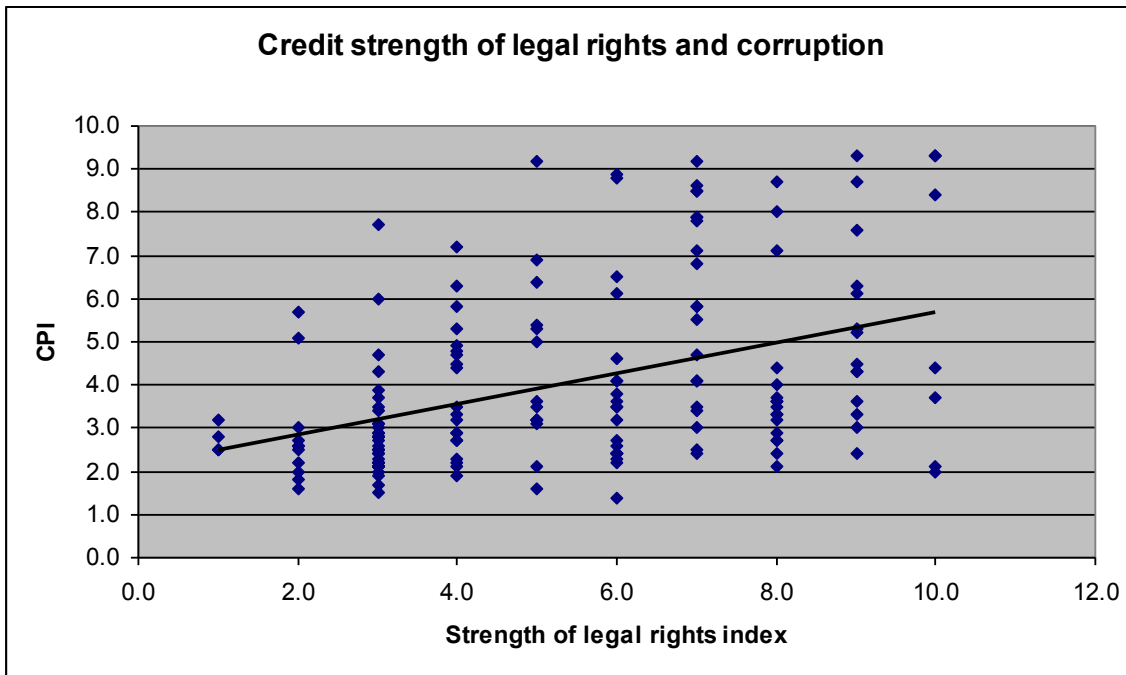
Source: Authors' calculations based on WB and TI data.

Figure 2.2 Corruption and days required to start a new business, 2009

Over-lengthy bureaucratic procedures are generally associated with high levels of corruption. With few exceptions (specifically, Spain's average corruption is associated with a number of days that are significantly higher than the industrialized country average), this relationship is strong all through our data set. It is interesting to note that in Indonesia, a country that have been for long characterized by high levels of corruption, it takes half a year before a new business can begin.

Corruption favors certain players and excludes others from access to necessary services. The inability to access services is among the principal factors militating against new business creation. An empirical study of a sample of Moscow-based firms found that management connectedness with city officials helps predict which firms will access bank finance (Tanzi 2002). Access to finance is critical to new businesses, and the granting of finance determines access of new market entrants. These results confirm empirical evidence as provided by recent studies on business-politics relations; these studies confirm that politically-connected firms enjoy better access to finance, stronger market power and tax benefits. Nevertheless, empirical evidence also shows that these businesses perform generally worse than other businesses. We deal extensively with this topic in Chapter 4 of our book.

The credit dimension of legal rights, as part of the general quality of governance, is also a primary determinant of market entry and investment decisions: extra costs are a significant obstacle to business creation. In Figure 2.3 we show that the impact of the cost of capital on the economy and domestic corruption are correlated. We may suppose that, if the cost of capital is too high, alternative (possibly uncertain and unsafe) sources of capital may be available in the economy.



Note: CPI = 10 denotes the absence of corruption while CPI = 0 denotes the highest level of corruption.

Source: Authors' calculations based on WB and TI data.

Figure 2.3 Credit strength of legal rights and corruption, 2009

Figure 2.3 shows that high corruption (low CPI) is associated with an adverse impact on the credit strength of legal rights, which in turn impacts negatively on the cost of capital. Again, the reason for this correlation may be the negative impact of bad governance on institutional decisions (which the cost of capital depends upon), risk factors or the fact that, should the cost of capital pervasively hinder their businesses, market players might use alternative, illegal practices, such as corruption. We cannot exclude the possibility that the relationship between the negative impact of high costs of capital and corruption may take effect through channels that involve such variables as economic growth and risk.⁹

2.2. Competitiveness: Effects of Corrupt Environments on Firms

The effects of corruption constitute an impediment not only to new business creation, but also to existing businesses, the interests of which are not protected. Since the difficulties for firms of operating in corrupt environments are substantial, special attention must be given to them.

2.2.1. Obstacles to businesses

Corruption distorts some of the main functions of government regulation. Over time there might be many instances of incumbent firms lobbying in favor of regulating their own sector since the cost of complying with the regulations may keep new companies from entering the market. When corrupt practices are added to the existing regulations, the distorting effect is intensified by the creation of new "illicit" artificial barriers. Several empirical works reveal that "in many countries (e.g.,

⁹ Strength of legal rights index measures the degree to which collateral and bankruptcy laws protect the rights of borrowers and lenders and thus facilitate lending. The index ranges from 0 to 10, with higher scores indicating that these laws are better designed to expand access to credit. See <http://data.worldbank.org/indicator/IC.LGL.CRED.XQ>

Ukraine, Russia, and Indonesia) enterprises – especially small ones – are forced by public officials to pay to make things happen or even to keep bad things from happening. Often these payments must be made if the enterprise is to remain in business” (Tanzi 2002: 46).

A WB study (Kaufmann 2004) offers an analysis of channels through which corruption obstructs the activity of firms with operations in corrupt environments. This study is based on evidence from a World Economic Forum executive opinion (EOS) survey. This report analyzes the results of a survey from a sample of firms with operations in industrialized and developing countries. A question was asked to identify five factors (out of a list of 15) which most obstruct their business.

OECD’s data show that in emerging economies factors with a major adverse impact are corruption, bureaucracy, political instability and finance; labor regulations, inefficient bureaucracy and taxes are critical factors in industrialized countries. We may note that these results reflect the perceptions of individual firms. Yet, this is not a good reason to underestimate these results: perceptions are at the basis of expectations and investment decisions.

If we group all 15 factors into seven sets, the governance-variables set is the most important: in particular, firms in 79 out of 104 EO-surveyed countries indicate that governance factors have a major adverse impact on their business. Corporate finance, labor market, tax regime and infrastructure rank as a second critical set. A significant gap exists between the first and second critical set.

2.2.2. Dangers and costs for firms

It should now be clear that corruption raises the costs and risks of doing business. To the obvious cost of paying bribes, one has to add the – more damaging in terms of overall efficiency – unnecessary delays or red-tape requirements devised by public officials in order to extract bribes. What is more, corruption is a cost for society as a whole and acts as a structural constraint. It may not be eliminated nor minimized significantly by individuals in the economy, but calls for governance reforms. Like security and crime prevention, corruption represents a fixed cost and is a major charge to corporate investment decisions. EOS results for 2004 (Kaufmann 2004) with respect to the relative costs of corruption reveal interesting issues.

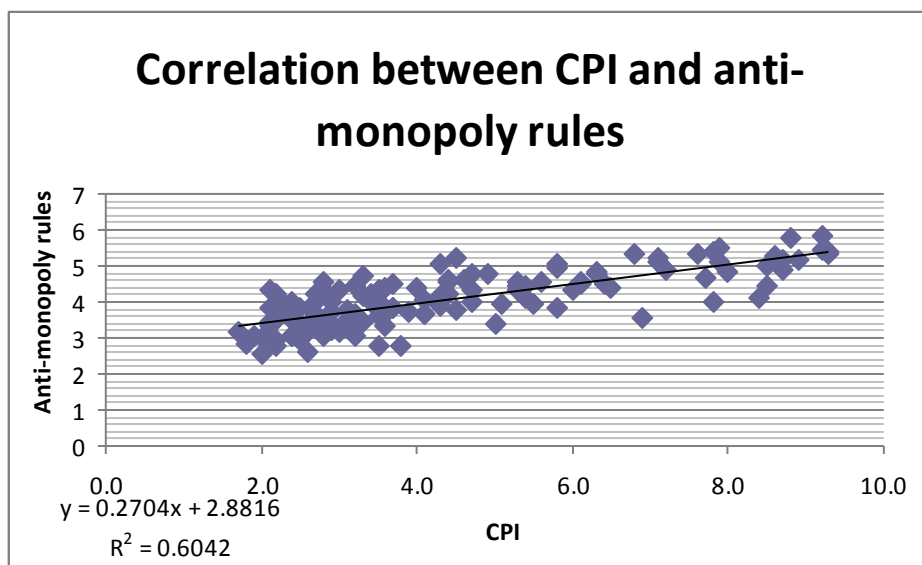
OECD’s data related to different institutional contexts shows that State capture is perceived as the most harmful threat according to firms in Southern Asia, Eastern Europe, Asian developing countries and the former Soviet Union. Also, it represents a major charge for firms in the G7 and OECD countries, South America and the newly industrialized countries (NICS). Only in North European countries – for which CPI scores are very good – does the impact of corruption seem negligible.

While it denotes the importance of State capture costs, we need to highlight also the importance of the costs of organized crime, including all organized corruption (f.e. administrative corruption) other than State capture. In Latin America, Eastern Europe, the former Soviet Union, Asian emerging economies, Northern Europe, and OECD countries, crime ranks second amongst all perceived costs for firms; moreover, the cost of organized crime for firms is one of the most significant for all countries, excluding Northern Europe.¹⁰

2.2.3 Regulated competition

¹⁰ Empirical evidence shows that terrorism is a significant cost in most of the areas examined, but only firms in industrialized countries perceive terrorism as a particularly dangerous threat. If we consider that State capture and organized crime are at significant levels also in this area, we may reasonably think that policymakers should widen their focus from terrorism to governance-related crimes. In the light of this argument, it may be useful to show empirical evidence from Kaufmann (2004) on a comparative analysis of the costs of terrorism and organized crime for firms in a specific country sample. Organized crime appears to be a major obstacle to business in Italy and Russia. In spite of so significant an impact being more of an exception than the rule, we may note that, as in other industrialized countries including Spain, Portugal and Japan, the impact of organized crime must not be underestimated.

Corruption uses governance factors to operate from inside markets and distort resource allocation.¹¹ Opposing competitive market functioning are various obstacles, also in the form of laws to protect individual versus collective interests; the functioning of competition reflects the quality of regulations to protect it. In Figure 2.4 we show the relationship between the perceived efficient regulation of competition and CPI;¹² well-regulated competition is associated with high CPI, or low corruption.



Note: CPI = 10 denotes the absence of corruption while CPI = 0 denotes the highest level of corruption.

Source: Authors' calculations on based on the World Economic Forum (WEF) World Report and TI data.

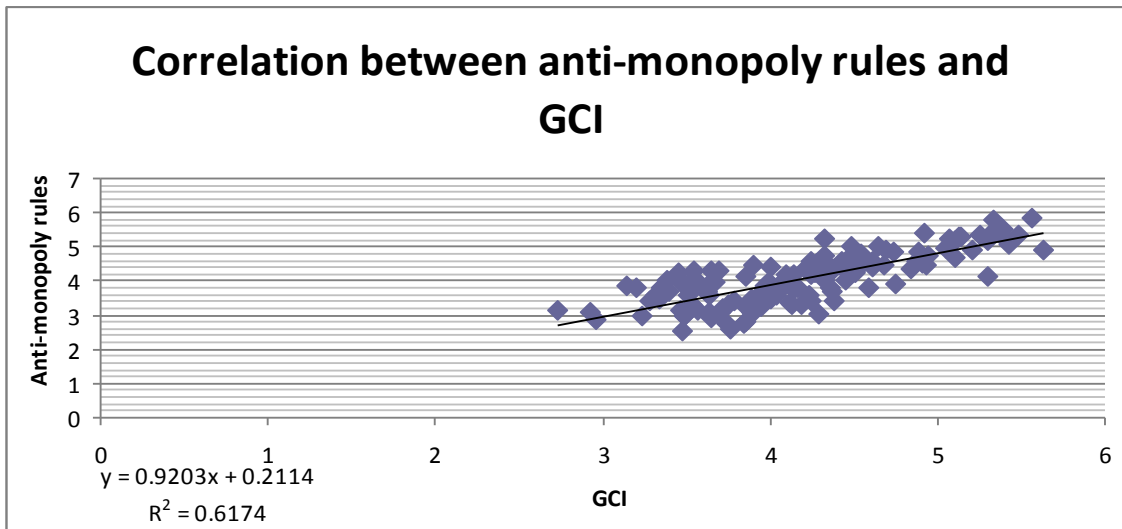
Figure 2.4 Anti-monopoly rules and corruption, 2009

Inefficiently regulated markets are poorly competitive. Production processes are a priori distorted by inefficient resource allocation and a selection of market players that does not reflect quality parameters. If, on the one hand, inefficient firms or firms that are unable to meet consumer tastes can survive, provided they are favored by distortions, on the other hand, firms not favored by regulations may be driven out of business irrespective of their quality. Such a market does not guarantee efficiency, hence it is not competitive.

This argument leads one to think that efficient regulation of competition and market competitiveness are positively associated. We analyze the evidence available to us. Figure 2.5 shows the positive and strong correlation between an index of efficient regulation and an index of firm competitiveness in individual countries.

¹¹ Chapter 7 of our book analyse corruption in relation to governance variables.

¹² The World Economic Forum has been studying the competitiveness of nations for nearly three decades. Since 1979, annual *Global Competitiveness Reports* have examined the factors enabling national economies to achieve sustained economic growth and long-term prosperity. Over the years our reports have served as benchmarking tools for business leaders and policymakers to identify obstacles to improved competitiveness. The methodology used to assess national competitiveness has necessarily evolved over time as we have taken into account the latest thinking on the factors driving competitiveness and growth. It was in this context that in 2004 the World Economic Forum introduced the Global Competitiveness Index (GCI), a highly comprehensive index for measuring national competitiveness, taking into account the microeconomic and macroeconomic foundations of national competitiveness.

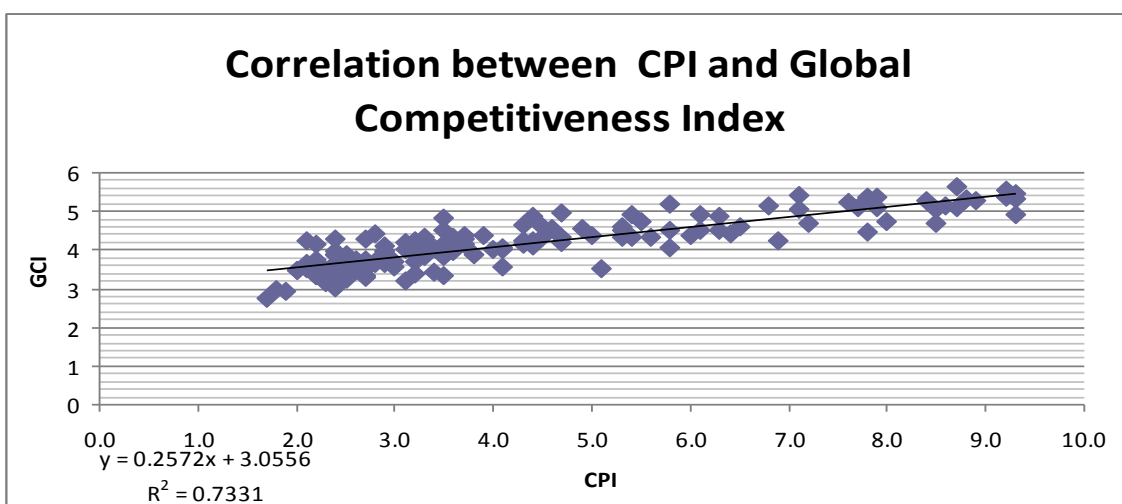


Source: Authors' calculations based on WEF and Global Competitiveness Index (GCI) data.

Figure 2.5 Anti-monopoly rules and firms' competitiveness, 2009

Regulations that reflect bad market governance hinder competitive selection and favor inefficiencies.

From the fact that both country competitiveness and CPI are positively associated with the quality of competition, we may infer that competitiveness and corruption are also correlated. Based on different methodology and indicators, Kaufmann (2004) derives indeed this relation. Corruption results in being the most significant explanatory variable, with a negative coefficient of *c.*0.76, measuring its correlation with competitiveness. In Figure 2.6 we show the empirical evidence that is available to us in this respect.



Note: CPI = 10 denotes the absence of corruption while CPI = 0 denotes the highest level of corruption.

Source: Authors' calculations based on GCI and TI data.

Figure 2.6 Competitiveness and corruption, 2009

The data underline the fact that the higher the level of a country's competitiveness, the lower the corruption it experiences.¹³

This empirical evidence is particularly significant in its possible implications for economic policy. The data underline the importance of governing competition clearly and efficiently; bureaucracy in excess and unnecessary State intervention cause serious inefficiency. To minimize government involvement means to eliminate discretion for State officials and inefficiencies in connection with bureaucratic regulators. Nevertheless, because markets per se may not guarantee market efficiency, there is a need for market regulation to protect the functioning of competition or to prevent a free rein for single firms, when, for reasons of economic efficiency, it is desirable to have a monopolistic or highly concentrated market structure (e.g. public utilities).

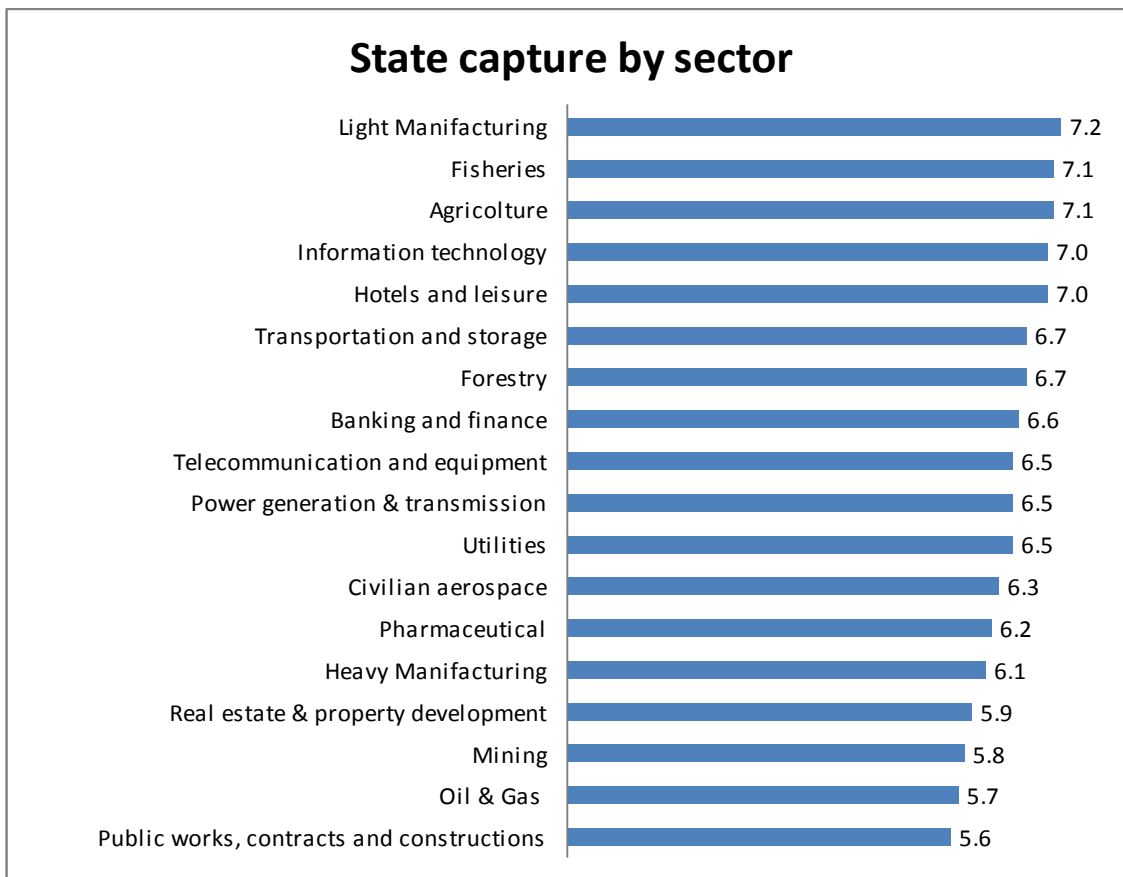
To ensure that regulations as established are correctly implemented, independent authorities are required to supervise the market. Mandated to monitor the functioning of competition, supervisory/regulatory authorities play a fundamental role in this respect. Nevertheless, the correct functioning of supervisors is threatened both by political and private pressures (the risks of political capture and private capture, respectively): to ensure that supervisors are not vulnerable to the possibility of such conditioning, it is necessary for such institutions to undertake their activities with a high degree of autonomy. Prominent examples are the independent agencies constituted worldwide in order to regulate and monitor economic sectors after their full or partial liberalization and privatization, like the network industries (e.g. energy and telecommunication). If effective autonomy cannot be granted and preserved, there may be a basis for the development of power abuse and corruption.

2.3. Corruption and its Impact on Markets

Corruption has no uniform impact on all markets, or on all businesses in one market. The impact of corruption may be greater for certain businesses. Environments in which there is concentrated economic or political power largely favor the development of corruption. An incentive to corruption is that the costs of prosecution are more than compensated by illegal rents.

To analyze the impact of corruption in different sectors of the economy, we utilize the results of a study by TI. Figure 2.7 illustrates the perceptions of sampled firms in sectors where bribe payments are more frequent. Our reference index is the bribe payers index (BPI), which is calculated using a sample of emerging countries that are involved in international trade and are the recipients of foreign finance.

¹³ However, within this general context, the United States shows a slightly different pattern: one of the world's most competitive economies shows low domestic corruption, but not the lowest.



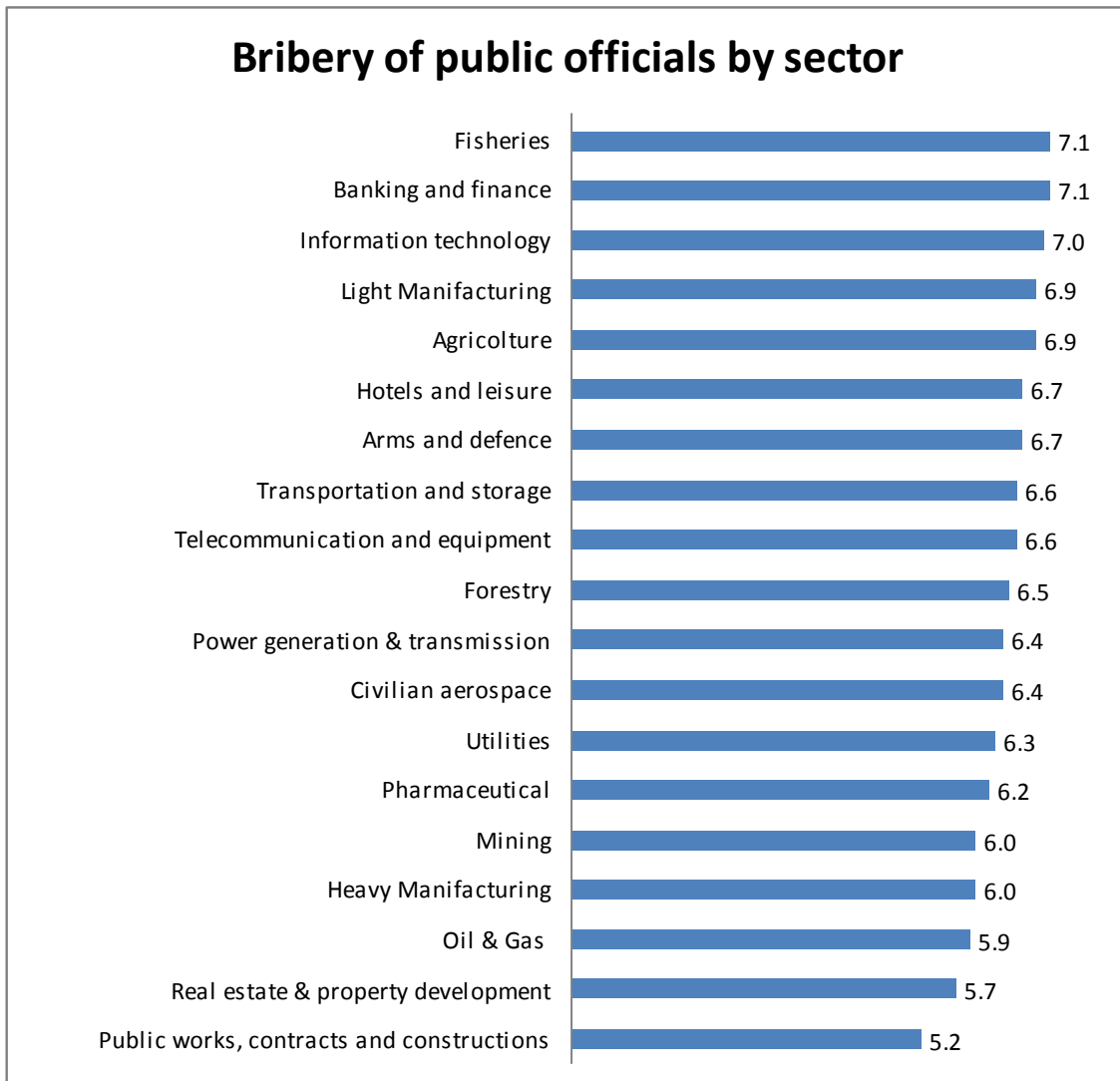
Note: 0 denotes highest perceived corruption and 10 denotes the absence of corruption.

Source: TI, BPI 2009.

Figure 2.7 Sectors where bribe payments to State officials are more frequent, 2008

Figure 2.7 shows data that are consistent with our earlier discussion. We may note that high levels of corruption are associated with highly capitalized sectors in which significant State constraints exist on entrepreneurial activities. For instance, in real estate development corruption exists that is associated with large contracts. In energy and telecommunications, State regulations may lead to the establishment of monopolies or oligopolies. We may also mention all industries supplying governmental products and services only, under no competition constraints: included are the defense and pharmaceutical sectors.

The association of corruption with the possibility of earning substantial rents is also reflected in the magnitude of bribe amounts. If, on the one hand, sectors where there is the potential to extract substantial rents are corrupt to the highest degree, on the other hand, favors that earn significant benefits for those who ask may have a very high price. These arguments are in keeping with the empirical evidence.



Note: Scores reflect the percentage of answers that mention a specific sector.

Source: TI, BPI 2008.

Figure 2.8 Sectors where bribe payments to public officials are higher in amount, 2008

Figure 2.8 shows that sectors in which corruption is higher are also those in which higher bribes are extorted. Construction is perceived as the most corrupt sector and the one where the highest amount is paid in bribes. This is also applicable to oil and gas, defense and energy. While corruption is close to the average, bribe amounts are low in the banking and finance sectors, as shown in Figures 2.7 (in which banking and finance rank 8) and 2.8 (in which banking and finance rank 2) respectively.

2.4. Small- and Medium-sized Firms

We conclude our discussion of the multi-faceted market impact of corruption with a focus on SMEs: their peculiarity is not so much that they contribute to widespread corruption, as that they may not be able to bear its additional costs.

The empirical study of OECD countries during the 1990s by Tanzi and Davoodi (2002a and 2002b) spells out a number of interesting aspects which lie behind the changing perception of the

role of SMEs in the economy: even though they may comprise a smaller share of added value in the economy than large enterprises, they employ the bulk of the labor force and create most of the new jobs. Consistent with their importance in the employment share, they tend to be less capital intensive. While large firms tend to be process-innovative, SMEs tend to invest more in product-vs-process innovation (as larger firms do). They are more financially constrained than large enterprises, which have easier access to capital markets. Access to finance aside, their survival depends on competent entrepreneurship, talented management, and the environment they face.

The vital role of SMEs is not limited to OECD countries, but extends to transition economies and developing countries as well. Tanzi and Davoodi (2002a and 2002b) highlight that the effect of corruption is differentiated among enterprises and is particularly intense for SMEs. For this reason corruption acts as a brake on the engines that promote growth in most countries: obstacles to the creation and growth of small new enterprises cause economies to languish, especially in developing countries and increasingly in transition economies. This discussion strengthens the results of the relationships between corruption and the cost of capital, on the one hand, and corruption and access to finance, on the other.

Corruption may represent so high a cost that SMEs may be forced out of the market: small- and medium-sized (versus large) firms typically cannot afford bribe payments or to create specialized internal organizations for the efficient management of the relationship with State officials. It is difficult for them to avoid paying bribes and they are generally forced to pay higher bribes per unit of output than are larger firms. Far from experiencing oligopolistic dynamics, they tend to operate in more competitive environments, where earnings can be minimal.

Tanzi and Davoodi (2002a) also provide empirical evidence in support of these arguments. For instance, in Indonesia, the cost of corruption for small firms and retailers equals 20 percent of sales; similarly, in Uganda, in 1997 firms paid bribes of up to 28 percent of the capital they invested in machinery and equipment. There is empirical evidence that managers of smaller firms are generally forced to spend more time with State officials. Because time is scarce, the more time spent on bureaucracy the higher the cost. Also, the adverse impact of corruption on returns to capital is stronger for smaller firms: while Argentina's larger firms experience lower returns in the range of 1 to 2.5 percent, SMEs see a drop in the range 3.0–3.6 percent and 2.0–2.5 percent, respectively.¹⁴

The impact of corruption on SMEs has important policy implications. SMEs drive labor demand and economic growth; because of this, economic policy should seek to eliminate obstacles to their activities to promote development. Nevertheless, our earlier discussion highlighted how corruption negatively impacts the possibility that SMEs continue their activities; hence, policy measures in their favor may prove ineffective unless attention is drawn to the costs of corruption.

A similar lesson can be drawn to that learned for the relationship between competitiveness and corruption: economic development through SMEs in corrupt economies is not generally possible unless financial sector governance undergoes major reforms.

2.3. THE ALLOCATION OF TALENTS

The existence of markets pervaded by corruption is at the same time cause and effect of the possibility that most talented individuals will prefer rent-seeking versus productive activities. Several recent studies have confirmed this trend and underlined the possible adverse implications for economic growth (Murphy, Shleifer, and Vishny 1991, Tanzi and Davoodi 2002a). Like the first one, the second study is empirical research analyzing the implications of students from 53 countries who choose to enroll in productive activities, such as engineering, versus rent-seeking-associated activities such as law. The results of regressions show that domestic corruption is adversely correlated with the choice of productive activities; there is also a major adverse impact on growth due to the allocation of talent in favor of non-productive activities. Finally, individuals from

¹⁴ We analyze the effects of corruption on investment in Chapter 3 of the book. In the context of the present seminar it is sufficient to notice the multiplicity of channels through which corruption hinders the activity of small firms.

affluent social groups are more inclined to choose non-productive activities in corrupt environments; Dabla-Norris and Wade (2002) show that, if constraints exist on financial markets, individuals with income in excess of a certain critical threshold tend to favor rent-seeking. This reflects an attempt both to preserve initial wealth and, more importantly, to prevent others from appropriating this wealth.

Another remark is worth emphasizing: endemic corruption acts as a tremendously blocking psychological factor for those who are willing to invest in their education and talent; our view is that, when strongly rooted in a given society, it has the potential to increase fear, frustration, and anger to such an extent that it can unconsciously paralyze any plan over the mid to long run of young generations and impede them from entering into the adult phase of their own lives. The cost in terms of wasted energy and frustrated talents may be enormous.¹⁵

4. ECONOMIC DEVELOPMENT AND CORRUPTION

Corruption may impact a country's economic development not only through market dynamics, but also through the environment where those dynamics develop. A common proxy for a country's welfare, gross domestic product (GDP), measures, in fact, annual economic production. It does not, however, measure potential development. Potential growth results from a number of factors that are discussed in greater detail in Chapter 3 of our book.

Our focus is now on an index of business environment quality, elaborated by the Economy Intelligence Unit (EIU) and published yearly by the Economist.¹⁶ The business environment index reflects a country's existing opportunities to start new businesses; it includes such sub-indexes as market potential, fiscal policies, labor conditions, infrastructure, know-how, and, finally, a sub-index for the quality of a country's political environment. While it may provide no representation of a society's overall development potential, it offers a perspective on the existing market environment. This index not only takes into account constraints imposed by market regulations, but represents a proxy for a country's infrastructure, workforce, investment potential and political environment. Empirical evidence with respect to the relationship between a country's corruption

¹⁵ We provide substantial evidence in favour of this hypothesis in Chapter 3 of the book by analysing the relationship between the number of school dropouts and corruption we provide in Chapter 3.

¹⁶ The business rankings model measures the quality or attractiveness of the business environment in the 82 countries (previously 60) covered by Country Forecasts using a standard analytical framework. It is designed to reflect the main criteria used by companies to formulate their global business strategies, and is based not only on historical conditions but also on expectations about conditions prevailing over the next five years. This allows the Economist Intelligence Unit to use the regularity, depth and detail of its forecasting work to generate a unique set of forward-looking business environment rankings on a regional and global basis. The business rankings model examines ten separate criteria or categories, covering the political environment, the macroeconomic environment, market opportunities, policy towards free enterprise and competition, policy towards foreign investment, foreign trade and exchange controls, taxes, financing, the labour market and infrastructure. Each category contains a number of indicators which are assessed by the Economist Intelligence Unit for the last five years and the next five years. The number of indicators in each category varies from five (foreign trade and exchange regimes) to 16 (infrastructure), and there are 91 indicators in total. Almost half of the indicators are based on quantitative data (for example, GDP growth), and are mostly drawn from national and international statistical sources (see sources below) for the historical period (2001-2005). Scores for the forecast period (2006-2010) are based on Economist Intelligence Unit forecasts. The other indicators are qualitative in nature (for example, quality of the financial regulatory system, Schooling/skills; Technical and language skills; quality of local management) and are drawn from a range of data sources and business surveys, frequently adjusted by the Economist Intelligence Unit, for 2001- 2005. All forecasts for the qualitative indicators covering 2006-2010 are based on Economist Intelligence Unit assessments. The rankings are calculated in several stages. First, each of the 91 indicators is scored on a scale from 1 (very bad for business) to 5 (very good for business). The aggregate category scores are derived on the basis of simple or weighted averages of the indicator scores within a given category. These are then adjusted, on the basis of a linear transformation, to produce index values on a 1-10 scale. An arithmetic average of the ten category index values is then calculated to yield the aggregate business environment score for each country, again on a 1-10 scale.

and *governance* quality, and between corruption and competitiveness, respectively, indicates that corruption also has an adverse impact on the business environment.

Arnone and Iliopoulos (2005) present empirical evidence on the correlation between the business environment index and CPI. As argued above, data show that a country's business environment quality and domestic corruption are clearly related; markets favoring the development of entrepreneurial activities are clearly the least corrupt. We can go a step further by considering recent evidence from Italy. It is fair to state that historically Italy has confronted levels of political corruption higher than those found in other countries at similar levels of development. Thanks to the availability of comparative rankings according to the perceived corruption starting in the 1990's, we can be confident in our assertion that contemporary Italy is a relatively highly corrupt country. Already in 2000, Italy ranked as the world's most corrupt wealthy democracy and since then its ranking gets worse and worse. At the same time, at least considering some of the main variables related to the political environment used by the EIU to generate the business environment index: Government policy towards business; Effectiveness of political system in policy formulation and execution; Quality of the bureaucracy; Transparency and fairness of legal system; Efficiency of legal system, performed significantly worse than the regional average (out of 18 countries: Austria, Belgium, Cyprus, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, Turkey and the UK) over the period 2005-2009 and, on aggregate, the gap became more significant over the period 2010-14.¹⁷ More in detail, over the period 2005-2009, Italy scored 3.0 in Government policy towards business versus the 3.9 of the regional area; 3.0 versus 3.9 in Effectiveness of political system in policy formulation and execution; 3.0 versus 3.7 in Quality of the bureaucracy; 3.0 v. 4.0 in Transparency and fairness of legal system; and, finally, 2 versus 4.2 in Efficiency of legal system. Over the period 2010-2014, Italy scored 3.0 in Government policy towards business versus the 3.8 of the regional area; 2.0 versus 3.4 in Effectiveness of political system in policy formulation and execution; 3.0 versus 3.7 in Quality of the bureaucracy; 3.0 v. 4.0 in Transparency and fairness of legal system; and, finally, 2 versus 4.2 in Efficiency of legal system. Recalling that Italy has also ranked worse in terms of the main corruption perception-based indexes over the same periods, again we find a telling case to confirm the argued correlation between a country's business environment quality and domestic corruption. This evidence provides a wider focus for our analysis. Corruption has a deep impact on society: its effects are not only of concern in several aspects of economic life, but extend to institutional dimensions.

Let me conclude with a warm thank to Marco Arnone. He was not only a brilliant young economist, but a true renaissance man, with his deep knowledge of various fields, curiosity about many of the humanities and rare open-mindedness and readiness to listen to and learn from non-economist researchers, including lawyers and legal scholars, for whom he always displayed great respect and the genuine expectation of receiving helpful hints in finding ways to deal with economic and social problems. Most of all, he was a true friend.

Dr. Leonardo Borlini

Assistant Professor of EU Law, Department of Law
Researcher, Baffi Centre on International Markets, Money and Regulation
University Bocconi, Milan, Italy

leonardo.borlini@unibocconi.it

¹⁷ Cfr. www.funzionepubblica.gov.it